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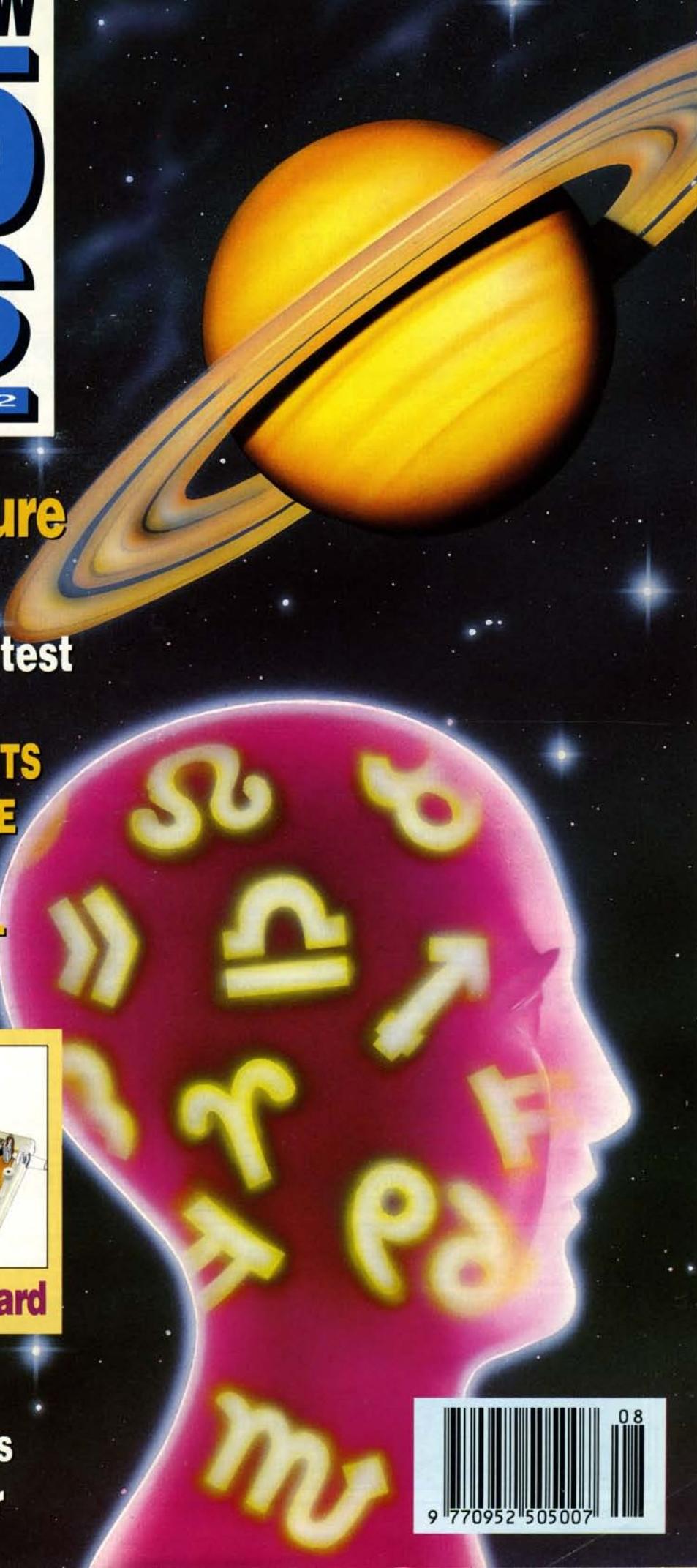
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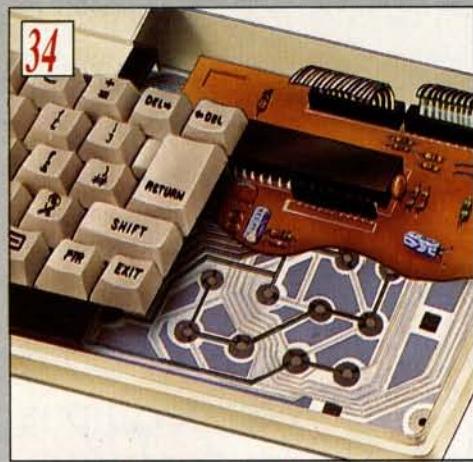
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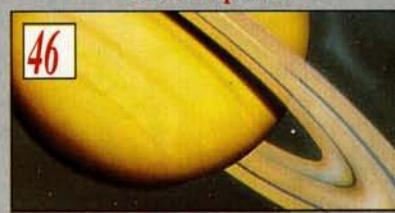
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Keys to Cleanliness



Case in point



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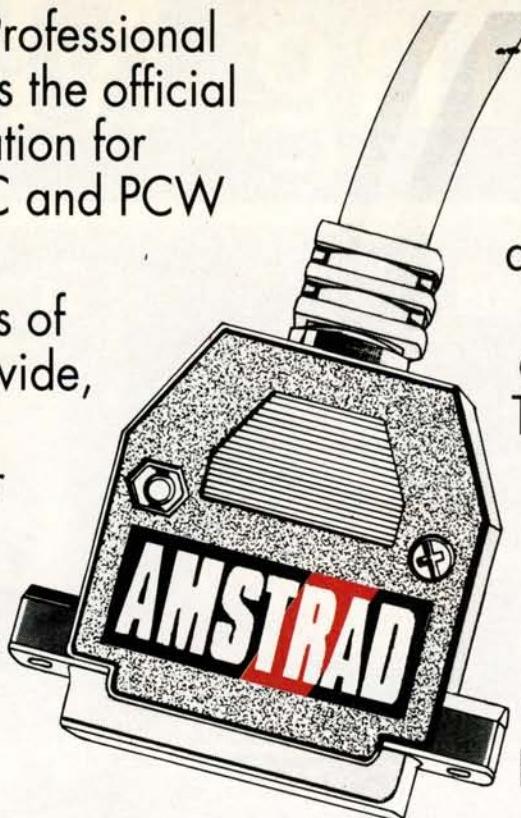
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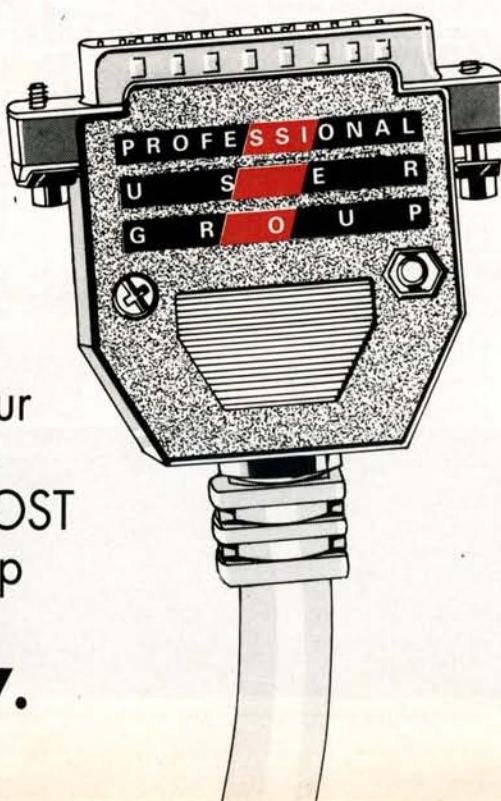
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There is one question which has preyed on the minds of human beings since we first emerged from the primeval slime: "What is going to happen to me tomorrow?" Princes, kings and sultans used to employ full-time seers and many ill-fated chickens lost their entrails in the quest for the answer.

Today of course we have a far more mature attitude towards the future ... well that's if you discount the newspaper astrology columns which predict that all Librans will meet small blond strangers while crossing water. The obvious solution is to have your own astrologer on-tap. Yet again the PCW comes to the rescue. Our reviews of the Astrocake astrology packages from page 46 onwards

examine whether or not computer prediction is any more feasible than the earringed version. It probably won't surprise anyone who has used a PCW for more than a month to know that it can also cope with numerology, the strange art of divination which sees birthdates, telephone numbers, height measurements and even the numerical construction of names as being directly related to future events. We also run a third eye over some numerological software.

Finally, to arm you with greater farsightedness than Gypsy Rose Lee with a telescope, the mystic art of the Tarot is also scrutinised. Combine these new product reviews with a Cracker 2 tutorial, an easy guide to comms and your own letters, and we think that the cards really do stack up in your favour. Have a good read.

The sound of music

Composit Software, who brought you the music program The Composer's Pen, have just released another product to extend their range of music printing programs. The new release, entitled MusicPad, brings some of the key features of The Composer's Pen to your PCW – but at less than a third of the price.

MusicPad is a trimmed down version of the original program. Said Andy Murray of Composit Software, "A lot of people found that The Composer's Pen offered features above and beyond their needs. For the user who had quite basic composition requirements, £74.75 was a lot to spend on such a complex piece of software. What we have in MusicPad is an ideal program for the beginner, a mini-version of The Composer's Pen."

The areas in which MusicPad differs from The Composer's Pen are quite numerous. The new program has a limited number of staves; where The Composer's Pen offered



MusicPad, a trimmed down Composer's Pen

up to 99, MusicPad offers up to four." This makes it more suited to the production of, say, choral music," Andy explained, "or the work of songwriters."

MusicPad has a limited number

of clefs – only the standard ones are available – and the program does not permit you to produce crescendo, decrescendo and phrase marks. "We had to decide where it was going to be most appropriate to modify the program, and this was one of the more likely areas."

What's the score?

So, with all these modifications, what exactly does MusicPad hold for the would-be composer? "All the solid, basic benefits of The Composer's Pen are still to be found here. You can enter your music, manipulate it and transpose it. At the end of the process, you end up with legible finished copy for musicians. MusicPad puts an end to having to read from hand-produced scores," said Andy. "It is going to be ideal for students, and it will also suit anyone who is producing simple, non-lengthy compositions."

MusicPad costs £22.94. Contact Composit Software on 0952 595436.

Hello, Goodbye

This month sees a few changes in the squad of dedicated people who slave hard to bring you your favourite magazine every month. We welcome new technical writer, Karen Donaghay, who has recently returned from a teaching post in Australia. She says she was lured back by "those truly English pleasures: a decent cup of tea and nearly winning the World Cup." We say goodbye to our Art Editor of sixteen months, Julie Barnes; her shoes will be filled by Harry Athay.



Mm; they've got some strange practices down under

Sweet reams



Read all about it! David Thomas' "Alan Sugar - The Amstrad Story" will be on sale in bookshops from the end of July.

If you've ever caught yourself gazing in awe at your PCW and thanking your lucky stars that someone invented it, now is your chance to find out the inside story on the man himself. Yes, newsagents' shelves the whole country over are awaiting the imminent release of "Alan Sugar - The Amstrad Story" by David Thomas.

The book charts the progress of Alan Sugar, a former back street box shifter, on his journey to fame, fortune, and the earning of the kind of acclaim which led Rupert Murdoch to call him "Britain's greatest

entrepreneur." With the 10th anniversary of Amstrad's floatation on the stock market drawing near, this seems an ideal time for an insight into Alan Michael Sugar TRADING's life so far. The book tells of his ability to 'de-mystify' computers and technology and to market his products developing electronic goods that people wanted at affordable prices'

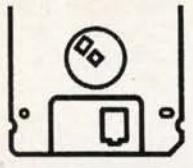
Refreshingly, the book is not all a tale of glory and success; the problems which Amstrad suffered at the end of the last decade are examined, as are the solutions which its figure-head devised to take the company roaring into the Nineties. This is the first authorised book to reveal Alan Sugar's business secrets, and was written with the benefit of information from the people closest to the man and the company.

"Alan Sugar - The Amstrad Story" is published by Century (071 973 9670); its author is ex-electronics correspondent for the Financial Times, David Thomas.

by Sophie Lankenau

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PRINTER CABLE Centronics to 25-way D-type	£10.95
NULL-MODEM CABLE for file transfer 25-way D-type	£10.95

Yves Saint Gone Wrong

The link between the fashion and computer industries has been forged with this new product release from Iles Optical Ltd of Middlesex. Not only will the new Lynx M50 VDU spectacles render you a firm contender for the modelling catwalks in your area, it will also protect you from those harmful ultra-violet rays beaming out from your computer screen.

Available with or without eye-shields (we think that the latter would be of greater value in preserving your street credibility) these glamorous glasses are manufactured to BS 2092 impact protection, and are specially tinted. The good news is that the specs need never clash with the colours in your everyday wardrobe. Iles Optical have produced the glasses in a range of fashionable shades to cater for all requirements.

Easy PC

The release of LocoScript PC is good news if you are a PCW owner who has experience of your machine's 'native' word processor, but have cause to use a PC at work. You will already have a more than adequate grasp of the way the program works; the only problem is applying that knowledge to a different machine.

Help is now at hand from Molesley Education, who offer a range of training courses for computer and word processor users. They have recently set up a new course offering tuition on LocoScript PC. For £30.00 per hour, a Molesley trainer will visit your workplace, and show up to five people how to get the best out of the new program. Teaching sessions usually last about two hours, and are held at the convenience of the client.

Contact the Molesley wisdom on 081 941 1364.

Positive screening

Accodata, producers of a whole range of computer accessories including their well established 'Glarecare' screen filters, have recently expanded their selection to include two more, high protection models. The filters are made of specially adapted low transmission glass, coated with an anti-reflective substance to reduce both screen glare, and the possibility of radiation from your monitor.

The new range has been developed with radiation in mind. Product manager for Accodata, Peter Mbakwe, explained why the company has decided to take such preventative measures. "There are two schools of thought where radiation

They are particularly pleased with the red, white, blue and yellow versions, a spectrum of colours which they think will encourage 'greater wearer acceptability'.

For those currently wearing corrective lenses, the news is even better; you can put your usual frames to one side, and have your prescription made up using Iles Optical's eye catching design instead.

There's no need to worry about size either; the company offers the spectacles in a range of different measurements, to suit male or female wearers.

The trouble with high fashion, however, is that it is usually synonymous with high expenditure; not so in this case. A pair of non-prescription Lynx's will cost you a mere £20.15. For more information, contact Neil Bray on 081 998 6600.

Spare us

Obtaining spare parts for your PCW can often be a lengthy and frustrating process, with dealers never quite living up to the after-sales back-up that they always seem to be promising at the time of purchase. Well, things look set to change very much for the better, and who better to improve matters than Amstrad themselves?

Amstrad Spares, formerly based in Harlow, Essex, are re-vamping their organisation and moving to Staffordshire to become a fully integrated part of the Amstrad Customer Support Centre. It is hoped that the addition of new technology in the form of the hopefully infallible system of 'bar coding' will mean that the whole process of ordering and dispatching replacement parts will become more streamlined and efficient.

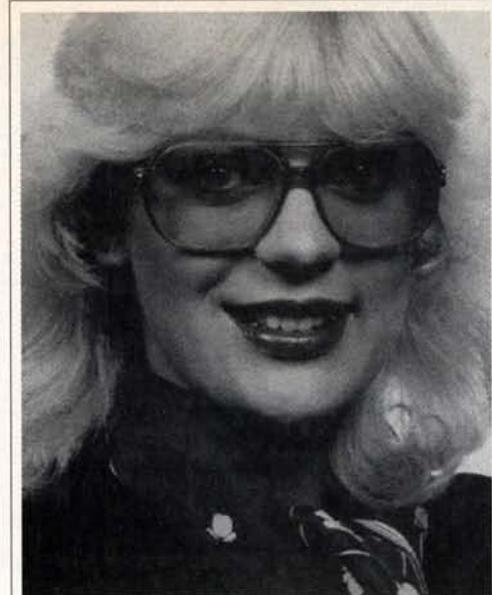
Martin Hayman, of Michael Joyce Consultants (Amstrad's Public Relations team), told us "Problems

arise in getting spare parts to dealers and then to the customer because of a lack of communication, and the inevitable margin for human error. One simple mistake made in keying in a part number means that customers can be kept waiting longer than necessary for spares."

Amstrad are aiming to stock more plentiful amounts of spare parts, all carrying a bar code like the type used to identify and price goods at the till in most major high street stores. The code is then 'read' electronically, thereby reducing all possible risk of human error.

"We are aiming to move towards the situation of the 'paperless' system" revealed Mr Hayman, "so that both the accuracy and the speed of ordering spares can be improved upon".

Amstrad UK Spares is managed by Derek Barlow, and will be open for business towards the end of July.



The very latest, high-fashion development in screen filter technology from Iles Optical Ltd

RNL-like you!

You may recall our review of Luxsoft's neat little package for BASIC programmers, BASIC Needs, in the May issue of 8000 Plus. Among the many good reasons for investing in the software was that £5 of the £9.95 purchase price was to be donated to the RNLI. We are pleased to say that thanks to your interest in the program, Malcolm Surl of Luxsoft has told us that £350 has now been raised to go to the Lifeboat Institute – and he would like to thank everyone who has bought BASIC Needs for their valuable contribution to the cause. To order your copy of the program, contact Luxsoft on (0726) 850820.

from VDU screens is concerned," he told us. "One says that there is a proven link between screen emissions and radiation, and the other says that there may well be, but it's no cause for concern. Our view is that if there is any question at all, people should be taking steps to protect themselves against all possible risk of injury."

There are two types of radiation which can affect users of VDU screens. The first – the one considered to be most dangerous – is that caused by the emission of a magnetic field from the screen. Scientific research has proven that there is a definite correlation between this kind of radiation, and sickness, usually in

the form of eyestrain, headaches and more minor complaints such as sneezing.

The second, less potent form, is the result of the electric fields surrounding the VDU display. Accodata's new VS Series VDT filters effectively drain away these electric fields, and, together with a kind of vacuuming process, shield the user from any likelihood of danger. The amount of dust accumulation on screen is also significantly reduced. The second of the new filters, the Glarecare GS screen filter, eliminates virtually all glare and enhances image contrast.

A VS series screen will cost you £99.00, and a Glarecare GS £65.00.

Voila!

With the holiday season at its height, it seems that even the PCW has had enough of our hazardous climate, and has taken off to the South of France. Geoffrey Bryan of Farnborough, Hampshire, spotted a PCW8256 going Gallic in the fourth programme of a BBC1 series entitled 'When in France'.

So what exactly was the PCW doing in deepest Provence? Applying another coat of white spirit to cool its sun drenched keyboard? Relaxing with a copy of 8000 Plus and dreaming of an extra drive? Sadly, no. It must have been a working holiday; the machine was shown in the study of authors Julian and Carrie Moore, whose book, "A Taste of Provence" was featured on the programme. Ah, c'est la vie...

The write stuff

You may be interested to learn that *Author*, the fortnightly publication for writers, has revealed in a recent tools of the trade article that the Amstrad PCW, together with its native word processor LocoScript, is the favourite machine used by those people who earn their livings as writers. Not bad going, eh?

Tip service

There's nothing like suspending a spreadsheet or diverting a database for an hour or so in favour of indulging in a spot of light entertainment on your PCW. With the increasing range and complexity of games for the machine, it might come as a relief to discover that a special tipline is shortly to be introduced to help you through the trickiest of challenges.

The service – existing under the rather boisterous title of the 'Megatip Gamesline' has recently opened to offer assistance to gamesters everywhere – or almost everywhere.

Its creators, Hot Shot Entertainment, will be extending the service to cover all the popular PCW games this coming autumn.

So, if you find yourself puzzled by The Pawn, flummoxed by Fish or cornered by Corruption, cool down and chill out; help will soon be at hand.

The number to ring is 0898 299388 – but don't phone just yet; the Gamesline creators are still busy working out the solutions for themselves, and won't be able to help you until much later on this year. We will, as they say, keep you posted.

Storm warning...

Introducing the very latest in automatic lightning warning stations, developed by a French company called Dimensions.

If the heavens open, and the thunder rumbles, this handy and oh-so-discreet device gathers and analyses the storm data, and delivers a warning to say that lightning is imminent. This gives you plenty of time to save your data, switch off your machine and prevent one flash destroying all your work.

Dimensions are currently looking for UK distributors for this rather unusual piece of equipment.



An overhead projector or a spotlight? No, a lightning warning station of course!

CLUB NEWS

Ground rules

The Club News Desk has seen some pretty impressive newsletters in its time, but the one from the Ground Floor User Group must take the prize for being one of the largest ones yet. The group, based in Hebden Bridge, West Yorkshire, has sent us a copy of their third newsletter, which is packed to bursting point with information on everything from CP/M to disc sector errors. This twenty-four page publication is also punctuated with numerous amusing cartoons.

The club was set up in May of this year, and aims to offer the chance for computer users 'regardless of their personal level of experience, to come together and chat about their computer problems'. The group provides many services, including data transfer facilities, cut price blank discs for purchase, and access to Masterscan for DTP enthusiasts. There is a 'Sick Disc Clinic' which can be used to help members recover damaged files, and an extensive Shareware library. All this for a mere £10.00 per year, or £1.00 per meeting.

The group chose its name because of the location used for its once-monthly meetings – the Ground Floor Community Centre at Hebden Bridge. The needs of all 'serious' computer users are catered for, so if you require help with machines other than the PCW, the chances are that the Ground Floor Group can help you. The look and the content of their newsletter proves without question that this is a dedicated and professionally run club, which retains a friendly and welcoming attitude.

For more details, contact Jae Campbell on (0422) 844991 in the daytime, or (0442) 845789 in the evenings. The club's next meeting is on Monday 8th October at 7.30pm. Subjects under consideration for forthcoming meetings are genealogy programs, comms and radio technology, and viruses. Keep up the good work!

CP/Mpathy

The London-based CP/M and MS DOS User Group has changed address. The group can now be found firmly ensconced in their new headquarters of 43 Birkbeck Road, Wimbledon, London SW19 8NZ, (081) 543 0824.

The club has been in existence for some ten years, and was formed initially to serve the needs of CP/M users. It offers a range of services, including a CP/M and MS DOS software library, and an invaluable disc copying service.

The club also sponsors the Windsor Bulletin Board, which enables members to go on-line and exchange messages – and to download from the two software libraries.

It is hoped that the group will soon expand its services to take under its wing the multifarious requirements of PCW owners in particular, and plans are afoot to introduce PCW-specific public domain software. Group leader David Nesbitt is currently on the look-out for suggestions as to which programs will be 'the most useful and easiest introduction to the mysteries of CP/M software'.

Annual subscription rates for the club are £16.50 for UK members, and £20.50 for overseas subscribers. If you would like to find out more about the club and the services they offer, why not drop them a line at their new address?

Starting a club?

If you are interested in starting a PCW club in your area, please write to us. We will be only too pleased to publish your letter and hopefully drum up some support.

GETTING IN ON THE GROUND FLOOR



THE GROUND FLOOR USER GROUP NEWSLETTER

The Ground Floor User Group newsletter; a porky 28-pager, punctuated with lively cartoons

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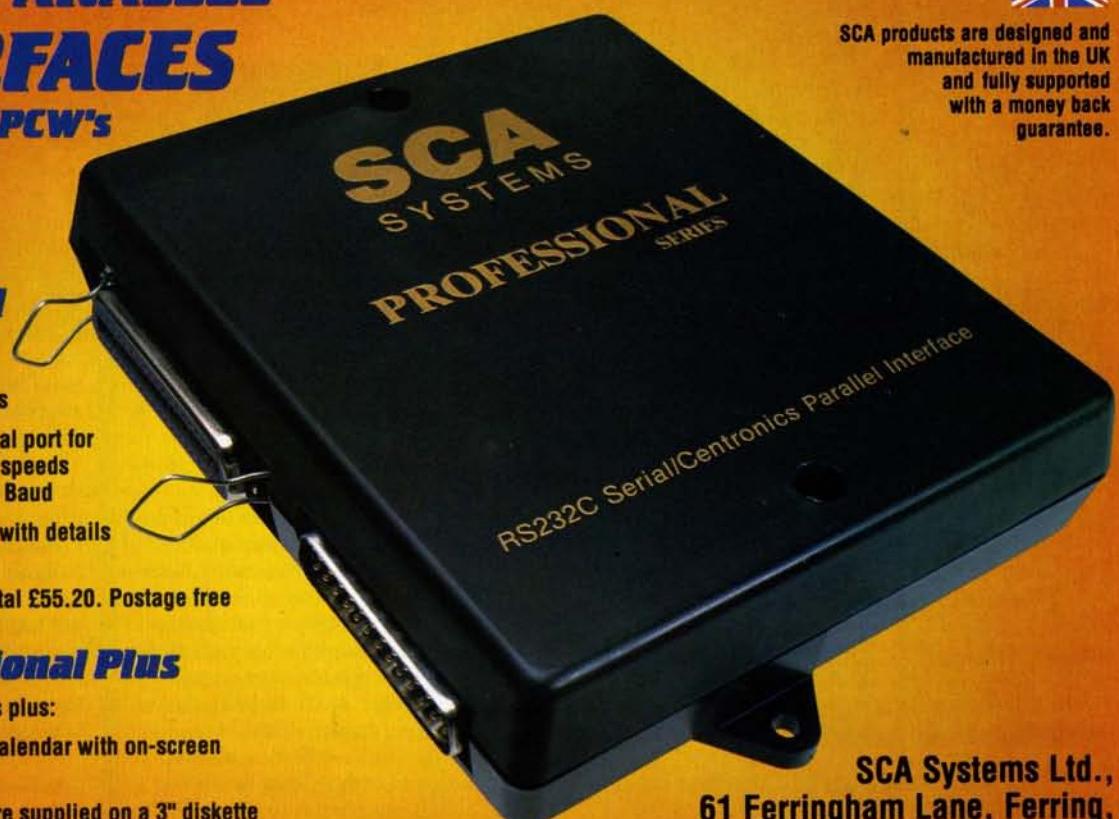
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E-Mail Intuition

In the second of our special comms features, Tim Smith shows you how to maximise your resources so that you can send documents down the 'phone-line using E-Mail. Plus, which software should you use?

Go on, have a look

Popular Viewdata systems are Prestel, Micronet and the Stock Exchange's TOPIC screens. They're the ones which show continually updated prices, company news and other trading details - pop into your local Stock Exchange for a look, there are offices in Edinburgh, Bristol, Newcastle, Dublin, Manchester and Birmingham as well as the most well known one in London.

In the United States, the term 'comms' is not looked on with half as much trepidation as it is in this country. This is not because everyone in the States is so unbearably computer literate that they have been breezing smoothly through baud rates and parity bits since the age of about three. No, it's because the use of the telephone with a computer is deemed to be such an obvious, useful, easy and cheap combination.

One thing we have yet to come to terms with in the UK is the fact that, with the imminent shrinking of Europe, data exchange via telecommunications networks is set to become the quickest and cheapest way of doing business and making contacts.

A government green paper is due out soon which will hopefully re-assess

the existing British Telecom/Mercury duopoly. This should open the market to other 'phone companies and, theoretically at least, bring down the cost of making that call.

So, with the value of the telephone growing daily, it is rather shortsighted not to make use of the large numbers of on-line databases and bulletin board systems (BBSs) which are already up and running in this country.

One type of system which is well worth a look is E-Mail or Electronic Mail. Basically, E-Mail works in exactly the same way as the local post-box except the red box on the street corner is replaced by an electronic file-holding system on a mainframe computer.

Duke scoop

The first time that E-Mail came to the

notice of the country at large was in 1984, when the Duke of Edinburgh's mailbox was 'broken into'. This was done, quite legally as it turned out (at least no jury or judge could find a legal precedent upon which to convict the errant hackers), by Steve Gold and Robert Shiffreen. The methodology behind the hack was complex enough, but it did lead to a rather stern tightening up of the hugely popular Prestel system.

The way that systems such as Prestel or Telecom Gold work could be called simplicity itself. All you need do is lay hands on the basic kit; this constitutes a modem, a compatible piece of software and, last but not least, a serial cable. Then all you have to do is write off to either of the services for a subscription. In the case of Telecom

Which software?

As with any software guide, this breaks down to a simple evaluation of what your needs are, and the level of involvement which you are hoping to achieve.

As we've already mentioned earlier, E-Mail allows your PCW to send messages and documents - which can be thousands of words long - to others on the electronic mail system. The most popular service of this kind is Telecom Gold (see final page for subscription charges). Meanwhile, systems like Prestel are more like information providers.

You may well be happy to stick with a few basic emulations, suitable baud rates for the facilities you are going to log-on to and not have any particular interest in keeping up with any changes.

On the other hand, you might want to be able to log-on to any new system which come along. Whatever your preference, there is something for everyone in the comms software market.

We looked at six comms software packages which are currently available for you and your PCW.

Comm+
£86.25 • Newstar Software
0245 265017

Now this one is built for the comms enthusiast. Comm+ is undoubtedly one of the strongest pieces of software around. Not only do you get the usual emulations such as TTY, you also get a very strong Viewdata emulation which brings up those blocky graphics in style. It is a fast program which can be 'programmed' to suit your needs. Almost 'multi-tasking' - that is you can do one thing while doing another, Comm+ might not be the most immediately friendly software in the world but once you become acquainted with it, you will be impressed by its capabilities.

As you would expect from a program of this price, the auto-dialling (you save a file, or files, which holds the details of the E-Mail or BBS which you regularly log-on to; this includes bauds, protocols, emulations and 'phone numbers. The program then connects to the modem and auto-dials from these. Helpfully there are menus which can be viewed from within the program and, for the boffins amongst you, there is also excellent line in error-checking.

UKM7
£0000 • Public Domain
(try Advantage software
0242 226755)

Public Domain software such as UKM7 (UK Modem 7 version XMODEM) comes with one major point in its favour - it is cheap. For the nervous user UKM7 is not a good introduction. The number storage which you will find with the pricier systems is practically nonexistent. However, there are plenty of help menus to ease the true beginner into comms.

On the upside, UKM7 is quick and comes with some reasonable documentation. Prestel users beware - there is no Viewdata support here. However, for the person who wishes to browse through the many BBSs available, this piece of software is probably for you. No frills, but good ASCII files transfer in both single and batch (multiple) file mode. This is great for downloading files from bulletin boards. It is also just about feasible to access and make use of E-Mail systems.

Finally, as with most Public Domain software, there are updates and 'tweaks' of UKM7 coming out every month or so.

Gold, subscriptions will include a sign-on code and password; they even include the kit itself. See overleaf for further details on subscription charges.

The back-up and technical support behind these large E-Mail systems is, quite simply, second to none. Unlike the smaller, and cheaper, enthusiast-run bulletin boards which you will tend to find scattered in abundance around the UK, Europe, Australia and the States, which offer both software and chat in very plentiful amounts, the large E-Mail systems are predominantly for professional use.

The central benefits behind holding a mail-box address on a massive system such as Telecom Gold are as follows: rapid communication of data all over the world, incredibly fast file handling by the system and constant updating.

Silence is golden

The way in which such systems work is also of interest because it affects your 'phone bill'. You can log-on using your password, from just about anywhere in the country. Your signal is transmitted to the nearest 'node' (the 'local' node). A node is merely another word for a switching or contact point. This node is then able to direct your call to the section of the main system. What this means in effect is that any call you make is charged at local rate.

For example, it's very possible that you might want to place a message in someone else's mail-box – you may have read a magazine article written by

some real computer buff who has put his mail-box number for further reference. The second party might well live in Fort William while you live in Penistone. Your call is fed to your local node and then passed on to the buff's corresponding local node.

If you haven't realised it yet, E-Mail couldn't really be much easier. Once you have set yourself up with the relevant equipment and have got used to your chosen comms software, all you need do is write a letter or type that report!

If you are using a word processing package such as Protext or LocoScript (okay, okay or Tasword or NewWord) make sure to save the document as an ASCII file first. Once the file is saved, go into your E-Mail system and find the area which is concerned with sending mail. This will be made comfortably apparent from an opening menu.

If you have the number of a specific mail-box, then key it straight in. If you just want to leave a 'hello, it's me' message, then look for a general area. Then all you need do is 'upload' (a technical term for sending it to the system). Receiving mail is also simple enough. Rule one however, is Thou Shall Not Read Messages Online! Even a small 3K document will take a little time to read; if you want to save it after reading it, this will take more time and, as we have all been told since management theories took over from old wive's tales – time is money, even if it's locally charged money.

The best course of action is to go

straight for your own mail-box and 'download' any messages immediately. Don't waste time.

Once you have got yourself a pass-number and mail-box code, it is a good idea to check your mail at the end of every day. It is amazing just how many people will want to talk to you once you get up and running.

Go on, ask the question you've all been dying to ask: what is the point of having an E-Mail system when you have Her Majesty's post office and a front door mat? It is not as if junk mail won't appear in an E-Mail system – it will. The main difference is speed and the fact that bulky documents can be fed from one person to another in pristine form. All you need do is prepare a letter, report or even novel on your word processor (or the built-in text editor if your comms software comes with one) and – without recourse to hard copy (paper) – you can send it directly.

This means that a person requiring an urgent report can phone you, request the report and in minutes he or she can download the same report from the mailbox.

Read this one

Many subscriptions to the larger E-Mail systems may include modems and software – however, if you are going to put your own comms kit together bear one thing in mind: buying a cheapo modem might leave you unable to log on to certain systems. Make sure that the modem can cope with baud rates of 1200/75, 75/1200 and 9600 ... otherwise you will be disappointed.

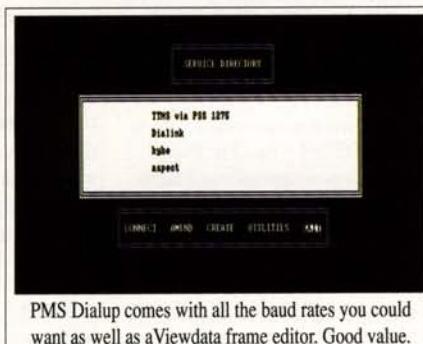
PMS Dialup

£89.99 • PMS Communications • 021 6437688

This package remains the 8000 Plus office standard. At first handling, it might look a little more intimidating than the mighty Chit-Chat featured over the page; but don't be put off by the fact that you have to press [EXIT] and then a number to access certain areas – you'll soon get used to Dialup's way of things.

The program comes with a whole range of useful features including a Viewdata frame editor. Phone numbers and detail files can be created quickly and easily with menus showing you exactly which baud rates and emulations are available to you. Once you have created a file – say for a typical BBS – this is stored and used for automatic dialling from then on.

Although the manual was compiled with the PC owner in mind, it is so well written, clear with an unusually adept explanation of terms that the PCW user will not be left in the wilderness.



PMS Dialup comes with all the baud rates you could want as well as a Viewdata frame editor. Good value.

for very long.

Unlike Chit-Chat, Dialup comes with no ready-made list of numbers built-in to the system so you have to build up your own database of contacts.

However, all the emulations and baud rates which you are likely to need are included in this package. There is excellent Viewdata emulation and both XMODEM and KERMIT protocols are included, as well as Dialup's very own, multi-purpose protocol. All in all you could do a great deal worse than get your hands on this piece of software.

Mini Office

£39.95 • Database Software • 0625 878888

Well, you either love Mini Office or you get frustrated by it.

Happily, the comms module from the suite is a good one. For the price it is virtually unbeatable. One extremely useful section is 'Preset systems'. This contains such wonders as a built-in Prestel unit with all the emulations and baud rates set up for you.

File transfer from an on-line system to your PCW is simple – and because Mini Office is a suite of programs, creating your own text files for uploading is also fairly straightforward, once

you've got the hang of the Mini Office command structure.

Unlike the dedicated comms software which will automatically send log-on sequences and passwords (normally horrendously long strings of characters, letters and numerals) for you, Mini Office needs to have its function keys defined.

This means that you have to load definitions before logging-on. For the occasional user of comms, say someone who wishes to keep up to date with a Prestel database, this is probably not too irritating.

However, for the seasoned campaigner or someone who has been bitten by the comms bug (and this does happen, so beware) they should remember that the Mini Office way of comms can be accused of being a wee bit long-winded.



Mini Office allows you to define function keys for speed, and comes with most of the emulations you'll need.

Maka data base

Some on-line databases such as the news carrying services so beloved of cub reporters or people too lazy to read the papers, provide a service which allows you to request news items from certain journals on certain subjects which are then placed in your mail-box everyday. In the States for example, you can have updated shopping prices; if you are looking for a house, details - some with digitised photographs, can be left with you on the hour every hour. This should not be too far off in this country and getting acquainted with a system such as Telecom Gold might not be a bad habit to get into.

with Viewdata, even if they don't realise it. When you flip over to one of these systems in the middle of a test match to see what the latest racing news is, you will notice the chunky looking lettering and blocked graphics. These are the hallmarks of Viewdata.

When logging-on (connecting) to computer comms systems, Viewdata is known as an 'emulation'. An emulation basically is a software controlled way of allowing your PCW to pretend that it is another system. A great many bulletin boards are run from IBM PCs or compatibles and they will receive calls from all sorts of computers. In order for them to talk to each other, some common ground must be reached. To this end all the computers on a system will 'emulate' one common standard - this may be TTY (which is a Teletype emulation) or the more interesting Viewdata system - there are many others which we don't need to go into at this moment.

Prestel gazing

Aside from Oracle and Teletext, the Prestel system is probably the most famous Viewdata system. It began as the videotext system in the late 1970's and was developed by the GPO in order to create a standard for on-screen telecommunications. Quite a few BBSs have also taken to using Viewdata systems for no other reason than many comms packages can emulate the system and that it is able to handle chunkier graphics than other emula-

tions.

The most common use for Viewdata systems is in on-line databases rather than messaging boards or systems (after all, do you really need flashy graphics to have an electronic conversation?). Unlike other transmission systems which scroll text from top to bottom of the screen, Viewdata transmits 'frames' (screens) of information.

These frames are made up of 40 characters by 24 lines on screen. Each Viewdata frame is preceded by a clear screen and cursor home command. This means that entire screens of information can be prepared - in colour with flashing images if necessary (although your PCW is obviously unable to perceive colour) - before transmission. In this way a few hours' information

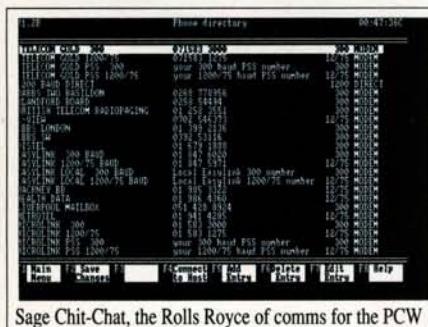
can be prepared and transmitted in a loop - screen 1, screen 2 and so on.

This will be apparent to you when you access a true Viewdata system. You will be presented with a page number. When you select a page, instead of having to scroll the whole thing on the screen, the Viewdata system can simply present the entire page in one chunk and be ready to move to the next. This is excellent for on-line databases which require updating only every few hours.

Some BBSs have decided to make use of Viewdata. This means that you will need to be able to send proper 'frames' from your PCW. Comms packages such as PMS' Dialup come with a Viewdata editor, so be sure to check the systems you would like to access and then tailor your choice of software to this. ●

Sage Chit-Chat

(Sage Popular) ● £225 (Chit-Chat Communications Pack, includes modem, cable, Viewdata and E-Mail systems)
091 2131555



Sage Chit-Chat, the Rolls Royce of comms for the PCW

This is as comprehensive a set of comms software as you could possibly want. It must be borne in mind when looking at prices that comms is one section of computing in which you can actually expect to re-coup your expenditure within the first year of use. You can download software from BBSs and you can access information from all over the world.

The Sage range of comms software, and support, will suit everyone who can afford it. Regular upgrades are made to

software which means that you will never need be left behind.

The first thing that will strike you when using Chit-Chat is that it is so easy. Loading is carried out from a simple PROFILE.SUB file. The PCW's memory is cleared and all the relevant files are copied

over from the A: drive disc. Built-in to the software is a text editor which saves time on creating messages to send. Several useful telephone numbers are included in the system, so in effect all you need do is connect up a modem, get into Chit-Chat and you can be logged on to a system within minutes. Adding numbers to the system is a simple procedure. In fact, despite the seemingly heavy initial outlay, Sage Chit-Chat will provide you with the Rolls Royce of PCW comms software.

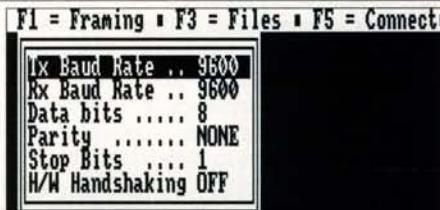
Mail 232

Comes free with LocoScript

Well, it was most considerate of Amstrad and Locomotive to have included this for free. Some people have even made use of Mail232.COM - most of them in order to log-on to bulletin boards in an attempt to find UKM7.COM. Generally, however, (and save for the excellent 'game of life' which comes hidden within it) it is worth avoiding.

One of the main reasons behind this course of action is the fact that the documentation is so difficult to get hold of. However, before completely abandoning Mail232, have another look. Designed as an E-Mail terminal, the program can handle any baud rate you could wish for. Although it is really only any good for ASCII file transfer, that's really all you want when taking mail from a box or

'delivering it' from your word processor. The pull-down menu system which is so familiar to LocoScript users is retained and this keeps an uncluttered screen which offers enough options to make comms possible without your vision becoming too obscured. If you are both patient and curious by nature, then Mail232.COM may well be your ideal choice of software choice. It will certainly serve regular E-Mail users with few quibbles.



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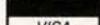
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It's a Cracker!

If juggling numbers gives you a headache, Karen Donaghay shows you why the Cracker II spreadsheet might be the answer to your prayers.

What's the damage?

Cracker II is available from Paperback Software (their telephone number is 0245 265017), and costs £49.00.

Wether it's in the office or back home in the kitchen, it can be the source of unlimited chaos. It can even ruin a marriage or bring a business to its knees. What are we talking about? Accounts, of course.

The time has come: instead of continuing to stuff unwanted cheque book stubs, receipts, statements and bills into that bulging kitchen drawer, we are going to show you how you can, at long last, impose some sort of order on them. And the means of this organisation? The spreadsheet, Cracker II.

But, you may ask, what exactly is a spreadsheet? A spreadsheet is a kind of table, with columns and rows so that each number is entered into its own compartment, or 'cell'. At the touch of a button, it can perform all types of mathematical calculations.

It is precisely this facility which allows you to hypothesise about numerical outcomes. For example, if I add 2p to the unit cost of a Plughole Hair Macrame Kit, how will this affect the year's annual turnover? Effectively you can work out your own financial fore-

casts quickly and accurately. Cracker's trump card lies in its ability to take your figures and transform them into charts and graphs. It can, in this way, enliven even the most deadly scientific table or stock control form by adding that extra graphic dimension.

So gather up your pieces of paper and let's get cracking!

Get that cash flow-ing!

Ever wondered where the money goes? You are not the only one, and that is what makes cash flow tables one of the most popular uses for a spreadsheet. Managing a cash flow involves breaking down your expenses and income; it is a vital part of managing the budget of any household or business.

The household cashflow is something which can be used by everyone, so this is the example we will use. In the second screenshot, you can see what we are aiming for. It lists the income and expenditure for the month and calculates totals of each. It then shows the profit margin or shortfall for that month and works out the new balance.

The balance is carried over to the next month. Here the figures for September have been estimated and inserted. Of course, you can later change the headings to make them relevant to your particular application.

In the beginning ...

The first stage in financial wizardry is to get Cracker up and running. To start the program, you must first load the CP/M disc. Once you have the A> prompt on your screen, you can then insert your copy of the Cracker master disc into the A drive. Then simply type in Cracker and press [RETURN]. The first menu is a simple little affair. Since at this stage we have no spreadsheet to work from, we are going to create our own. To do this, press [I].

Take another look at the screenshot and you

will see that we have laid out the cash flow example over three columns and 27 lines. Our first task is to reproduce that layout. To make a column, press [C] for column followed by 20 to determine the character width of the column. Press [RETURN].

The next prompt is for the default format. This column will contain mostly text, so choose [T] followed by [L] for left aligned text. If you make any mistakes, the backward delete key can cancel the last thing you typed. To abandon an entry altogether, use the [EXIT] key. Because all of these commands are in capitals, you may find it easier to switch on CAPS LOCK by pressing [ALT][ENTER] instead of using the [SHIFT] key.

You should now see the beginnings of your spreadsheet. There's not much space to move around in here, so create the lines with the sequence [I]nsert 27 [L]ines. This creates a spreadsheet which is 27 lines long. We don't want to insert them in any particular place so choose the default destination by pressing [RETURN]. We now have a complete first column.

Spreading it out

The other columns are created in similar fashion. Type in the sequence [I]nsert [C]olumn 20 [RETURN] [E]nd [RETURN] 0[F]inancial [RETURN]. This time the new column is introduced at the end of the spreadsheet and is of the format 0 financial. Financial format means that all the numbers will be displayed with two decimal places – like pounds and pence. The third and fourth columns are exactly the same. We now have the bare bones of our spreadsheet. The columns are the correct size and the program expects a certain type of entry – either text or numerical – for each column.

The next stage is to add the headings. Cursor to cell A5. From the screenshot we can see that the heading IN HAND (the balance carried over from the month before) goes here. Since the column format is already expecting a text entry, we can enter this simply by typing a fullstop followed by the words IN HAND. When working with the default format always enter a fullstop before inserting data. Press [RETURN] and the words will appear in the cell. Move down to cell A7 and type this heading in the same way. For the

Entering columns, rows ... and data

	A	B	C	D
1	ABCDEF	JLMMOPQRSTUVWXYZ	+~> ,(* arrows	16944
2	IN HAND			Auto.
3	INCOME			
4	Wages			
5	Other			
6	EXPENDITURE			
7	Mortgage			
8	Housekeeping			
9	Clothing			
10	Electricity			
11	Gas			
12	Telephone			
13	Entertainment			
14	Holiday			
15	Transport			
16	Other			
17	TOTAL INCOME			
18	TOTAL EXPENSES			
19	MONTHLY BALANCE			
20	NEW BALANCE			

The first stage is to prepare the layout of the spreadsheet so that it has columns, rows and headings. Ours is set up to show a household's cash flow over a three month period.

	A	B	C	D
1	CASH FLOW			
2	pounds			
3	OLD BALANCE	90.00	141.61	(195.39)
4	INCOME			
5	Wages	1,245.00	1,245.00	1,245.00
6	Other	50.00	120.00	0.00
7	EXPENDITURE			
8	Mortgage	450.00	450.00	450.00
9	Housekeeping	400.00	200.00	400.00
10	Clothing	123.89	29.00	40.00
11	Electricity		62.00	50.00
12	Gas			60.00
13	Telephone	120.00	150.00	60.00
14	Entertainment	80.00	700.00	60.00
15	Holiday			
16	Transport	47.50	700.00	47.50
17	Other	22.00	98.00	150.00
18	MONTLY TOTALS:	1,285.00	1,265.00	1,245.00
19	INCOME	51.61	162.00	137.50
20	EXPENSES		(327.00)	47.50
21	MARGIN			
22	BALANCE	141.61	(195.39)	(147.89)

Once the numerical details concerning monthly income and expenditure have been entered, you can use Cracker to completely reorganise your personal finances.

column headings in lower case letters, don't forget to switch off CAPS LOCK by using [ALT][ENTER] again.

The column headings (the month names) are slightly less straightforward to enter. The original default format of the column was "Financial" because this column is mostly for cash entries. So for this particular cell the format must be changed back to text. Type in [F]ormat then [T]ext. Press [R] to right align the text. Now the text can be typed in followed by [RETURN]. The same is true for the August and September headings. The next step is to include formulae for calculations (the Cracker manual refers to these as "expressions".)

Working it out

The total income for June is obviously the sum of all incomings throughout that month. In other words, cell B23 is the result of adding B8 to B9. This can be described by the formula $\text{SUM}(B8..B9)$. If this is typed into cell B23, the spreadsheet will then automatically work out the total income for that column and display the result of the calculation in that cell.

Let's enter the data. Move to cell B8, type a fullstop and then the figure 1,245 (don't try and insert the comma in the spreadsheet). The spreadsheet will neatly line up the pounds and pence even when you type in pounds alone. Continue working down the column copying in the values, until you get to **Total income**. Type in the expression $\text{SUM}(B8..B9)$. Lo and behold, the total value appears in the cell.

The rest of the formulae can be seen in the third screenshot. Copy these into the appropriate cells in the same way. Our cash flow only uses simple arithmetic; addition and subtraction. We will cover multiplication and division later on in the series.

You will notice that when your figures are minus amounts, Cracker displays them in brackets. When you move your cursor to a cell containing a formula, the actual contents are displayed in the top left hand corner. To show all of the expressions at once simply choose the [X] option from the menu.

What if...?

Now you have your cash flow in front of you, you may realise that actually you can't afford that exotic holiday in Barbados, and you will have to settle for a couple of weeks in Bognor in its place. Move over to the offending cell, C18, and type the fullstop followed by the price of a holiday in Bognor, let's say 350 quid. Everything affected by the change is rewritten and the balance at the end of September is transformed into a healthy £202.11

Removing entries is as easy as changing them. An entry can be "zapped" by placing the cursor over the [Z] for Zap. It is also possible to zap columns, rows and even whole spreadsheets, so do use this option carefully.

C14		C14			C14	
(E2..)		ABCDEF			GHIJKLMNOPQRSTUVWXYZ!+~>, (* arrows	
OF		Next:			D37	
CASH FLOW	Pounds	JULY	<18> ... (B26)	AUGUST	<20> ... (C26)	SEPTEMBER
OLD BALANCE	(90)					
INCOME	(1245)		(1245.00)			
Other	(50)		(120)			(6)
EXPENDITURE						
Mortgage	(450)					
Housekeeping	(400)		(200)			(400)
Clothing	(123.85)		(202)			(40)
Electricity						
Gas						(50)
Telephone	(120)					
Entertainment	(80)		(150)			(60)
Holiday			(700)			
Transport	(47.50)		(90)			(47.50)
Other	(22)					(150)
MONTHLY TOTAL						
INCOME	{<2> .. {SUM(B7..B8)}		{<3> .. {SUM(C7..C8)}		{<8> .. {SUM(D7..D8)}	
EXPENSES	{<4> .. {SUM(B9..B20)}		{<5> .. {SUM(C9..C20)}		{<9> .. {SUM(D9..D20)}	
MARGIN	{<15> .. {SUM(B23..B24)}		{<18> .. {SUM(C23..C24)}		{<10> .. {SUM(D23..D24)}	
BALANCE	{<16> .. {SUM(B25..B25)}		{<19> .. {SUM(C25..C4)}		{<21> .. {SUM(D25..D4)}	

A "behind the scenes" look at how Cracker performs all of those calculations. The totals are achieved by using simple formulae.

One very important anti-zap step is to save your work as you go. Saving is done using [C] for Copy. See the box at the foot of the page.

To exit from the program, use the option [Q] for Quit. Cracker automatically saves whatever you are working on to Security.mem, the default filename. This makes it a far safer way to exit than using the [STOP] key. Security.mem can be retrieved as a workable file by changing its name.

One more word on saving files. If you are using one drive only, and want to save onto a separate data disc, then you must have a copy of the file Cracker.ovr on that disc.

To reload the file, the copy option is also used. Once Cracker is running [C] followed by the filename will load in a new file.

Designing your own

Adapting this spreadsheet to your own requirements should be a simple case of zapping the headings you don't want and replacing them with your own.

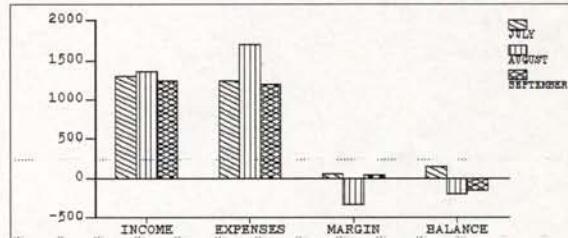
If you want to add more months so that the spreadsheet works on a yearly or a half yearly basis, this is also straightforward although the spreadsheet

would extend past the limits of the screen. To see the rest, move the cursor across until the whole spreadsheet is shifted over. The important thing to remember when making changes to a spreadsheet, is that if your formulae are affected, these must be changed as well.

To design your own spreadsheet from scratch, decide on which formats and what size columns you want before you start. It makes the whole process a lot easier.

In next month's issue, discover the artistic talents of Cracker II. Find out how to give this spreadsheet a new lease of life ... as a graph!

Next month



Displaying your cash flow in graphic detail is a breeze for Cracker.

In next month's issue, find out how.

Hints and Tips

What's this?

If you are suddenly confronted with a row of question marks in one of the cells, do not be alarmed. Cracker is trying to tell you that you have used that location in a formula, despite the fact that it is empty.

A Quicker Cracker!

One way to make Cracker run far more quickly, is to move the file Cracker.ovr onto the M drive using the PIP command on your CP/M disc. Because the M drive is internal it can access the program far more quickly. If you also want to use the help messages, then copy over Cracker.hlp as well.

Another Bleeping Mistake?

Cracker is nice enough to tell you about mistakes at the time that you type them in. When you get annoyed with the bleeping just remember it's all for your own good! Some of the easiest mistakes to make are typing ones.

Usually it is possible to escape from a mistake by pressing [EXIT]. There are exceptions. For instance, if you press [O] by mistake the only way to get out again is to press [RETURN].

Don't Save It – Copy It

There is no special Save option so you have to use the multi-functional Copy. Be careful. It is all too easy to assume that the correct sequence is [C]opy [F]ile. This is potentially disastrous, as it copies a file from the disc into your spreadsheet. The correct saving sequence is [C]opy [A]ll [F]ile.

Recycle your spreadsheet

The basic format of your spreadsheet can be reused. You don't have to restrict this to headings, columns and rows. Formulae may not need to change and there may also be some figures, such as standing orders, that can stay in the blueprint. Producing a new spreadsheet is then simply a case of filling in the figures.

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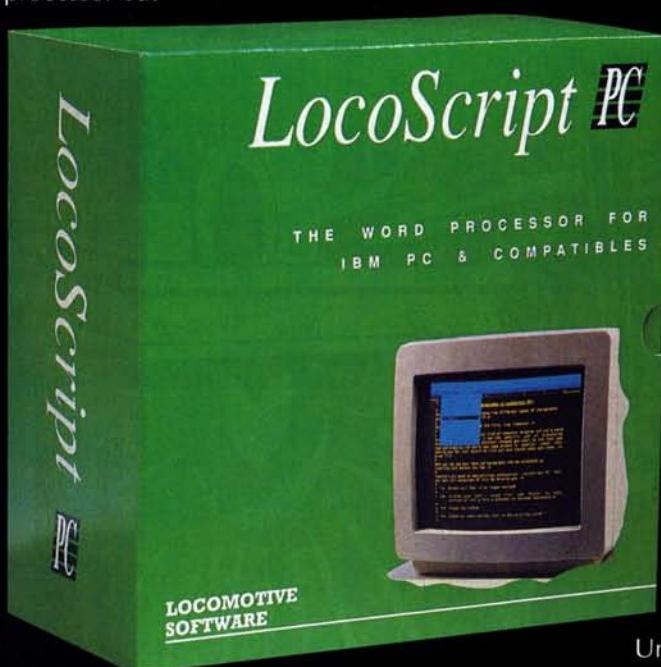
You can use over 300 models of printers with *LocoScript PC* from the least expensive dot-matrix to sophisticated laser printers. *LocoScript PC* comes with a **complete set of user guides** including an installation guide, a step-by-step tutorial, and a comprehensive reference guide, as well as a book with details of all the printers *LocoScript PC* supports.

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[†]*LocoScript PC* runs on any IBM PC compatible with at least 512K RAM, DOS v2.1 or later and one floppy disc drive. All standard display adapters are supported and both 5½" and 3½" discs are supplied in the package.

^{**}Special characters require a graphics adapter and a suitable 24 pin printer.



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impress is that your dependence on looking at the keyboard is drastically reduced. Your main concern is to see the fruits of your hard learned labour coming up on the screen before you.

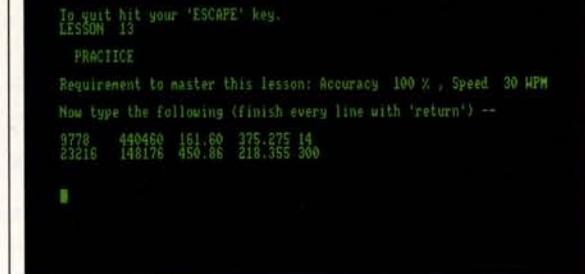
The technique is the same for all the letters of the alphabet; you cover capital letters and practice sessions become longer and more involved. The final few test sessions demand a speed of 40 words per minute, with 95% accuracy.

The numbers tutor follows a similar format; over 13 lessons you are required to reproduce lines of numerical sequences, together with the tab and return keys. The use of decimal points is also incorporated. This seemed harder to accomplish than the letters tutorial; for the complete beginner the impression

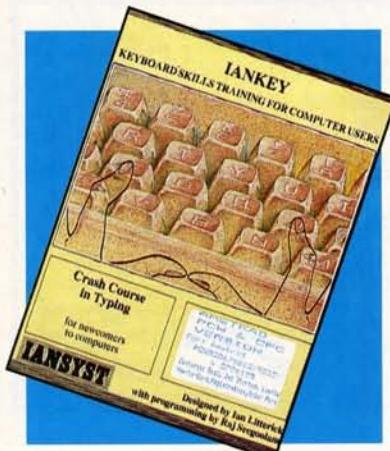
could well be that you need the manual dexterity of a concert pianist to reach that top line and satisfy the words per minute and accuracy targets. You are also expected to accomplish the difficult stretching movement of the little finger to reach the [Tab] key from lesson one. Again though, you cannot progress unless perfection is achieved, so the skill has to come in the end.

Touch 'n' Go is a no-nonsense, no frills package; the lessons are presented economically, yet with all the information required for you to execute them. There are no distracting beeps every time an error is made, and targets cannot be altered. The once specious claim about the addictiveness of the program is validated in the extreme; if you really

want to learn to touch type without any cossetting, then this package could be the one for you.



The numerals tutorial has you typing those far-off top line characters in no time. The use of the [Tab] key is also incorporated right from the start



IANKEY CRASH COURSE IN TYPING

£24.95 • Iansyst • 071 607 5844

There is something rather disconcerting about the term 'crash course'. It implies a somewhat frantic passage through potentially tricky territory culminating, more often than not, in a frenzied, sweat-drenched dash for the finishing post. The Iankey program claims to be able to teach you the basics of touch typing within 4 hours of study; for the complete beginner, it is, however, an inviting prospect.

The documentation accompanying the Iankey course is extremely well written, and is truly aimed at the beginner to computing and to typing. Instructions on copying the master disc and loading procedures for specific machines are clear, jargon free and concise. The initial screen displays an introduction to the course, and how to follow the lessons.

Continual assessment

The program has an on-screen keyboard, which you are able to adapt if yours is not the standard QWERTY model. You can store your work on either the master disc or a separate one, so that you can take a break from your study and go back to the point at which you left. This is particularly useful; even though the course is only supposed to take three hours, this is a long period of time to

spend in intense concentration.

The first lesson deals with letters rather than numbers, and introduces you immediately to the 'home keys' – asdfjkl;. The top section of the screen is devoted to target speeds and accuracy, together with the rates which you are actually achieving when you carry out an exercise. The right hand side offers a round up of your average performance as you progress. The speed target is set for the less than sprinting rate of 10wpm, and will stay that way unless you choose to adjust it.

Before your first evaluated exercise, you are invited to practice typing the letters to get a feel for the keys and the destination of your fingers. This is made easier by the fact that the screen keyboard shows, in clearly marked form, which finger is responsible for hitting which key. So, with digits poised, you begin the very first exercise, under the scrutiny of the in-built marking system.

You are assured that it doesn't matter how many mistakes you make; if you are a complete beginner, then looking at the marked version of your first attempt will call this promise to mind with some relief. The marking system is explained in a neat box at the foot of the screen, and, if you have managed to reach the target speed, you will see a friendly congratulations message, together with an invitation to go on to the next exercise.

Speed is of the essence

If, however, you are slower than the target, you repeat the exercise. The only failing at this stage is the fact that accuracy is valued less than speed; it is feasible to reproduce the test text as a line of complete gobbledegook and still earn a congratulations message by virtue of the fact that the speed target was met.

It seems that the whole point of learning to touch type is to know where the keys are without looking; speed is a skill which comes with practice. However, as the exercises advance, the question of accuracy arises. By exercise 8, if you are making too many mistakes, you are stopped in your tracks, told so,



Once you have completed your first exercise, an error symbol menu appears explaining the markings which the program has applied to your work



Speed has priority over accuracy early in the course, so as long as you meet the wpm target, you can progress regardless of the number of mistakes made!

and advised to check that you are sitting comfortably (literally) before you are allowed to continue.

The Iankey screen does so much to help you find the correct keys that you could almost do the exercises with your eyes closed once you have got used to all the 'prompts'. The keys that you are supposed to be using flash temptingly away at you from the screen keyboard, and the code letters for the fingers to use sit at the top of the slanted columns indicating their domain. After a few lessons, there really should be no excuse for looking down at the heap of plastic from which you could never tear your gaze before starting the course.

By the end of lesson one, you have been whisked through every letter on the board, including the use of the shift keys to produce capitals, and punctuation such as full stops and commas.

Lesson 2 is all about numerals and character keys, including '+ / - and

In a nutshell

Three hours is a bit ambitious for this one unless you don't value your sight. You can save your work to disc, and print or display a progress record. Numbers course thorough and accommodating for mistakes. Variable skill levels and priority of speed over accuracy not the best way to learn. On the whole though, a well-illustrated, well-documented package, representing the best value for money of the three on test here.



brackets. The format is the same as the one for letters; you are cosseted slightly more though, in the form of advice to drop your speed target, and an automatic enquiry as to whether you wish to repeat an exercise.

Play it again

Incidentally, you can repeat exercises in any lesson by pressing the [EXIT] key, selecting 'L' for 'Lesson' on the help menu and indicating which exercise you would like to try again. The program does take some time to carry out its search for your chosen lesson, which takes away some of the enthusiasm which you have mustered for having another go. It might have been better to incorporate a repeat option at the end of each exercise, regardless of whether

speed and accuracy targets have been met; this could give you extra practice at certain letter sequences before you moved on to tackle a new combination.

The final lesson in the crash course consists of good solid practice, with a 90% accuracy target imposed throughout. The text which you type is interesting too; the history of the computer will be yours to relate if you remember to put the right fingers in the right place.

There are three things which could distract the student from getting the most out of this course. The first is the unceremonious 'beep' which shrieks at you every time you make a mistake; the second is the keyboard display itself – it is essential in the early stages, but when you have reached a fairly advanced

level of learning it is too tempting to have it there to consult.

The third is the fact that every mistake made is marked with the appropriate symbol; you find yourself looking to see what exactly you did wrong instead of carrying on in the rhythm you have built up. Iankey, however, has provided the solution to two of these three gripes; both the beep and the keyboard display can be removed by using the appropriate commands from the help menu.

All in all, Iankey's Crash Course succeeds in its aim; it does not guarantee that you will be pounding the keyboard accurately in no time, but it does everything possible to point you in the right direction. The rest is down to you, and your willingness to practice. ■

In a nutshell

No time promise – this course can be completed quickly, but it is sheer practice which will get you out of bad habits. Progress can be displayed on screen or printed out; work can be saved to disc and resumed at your convenience. Skill levels are adjustable, but more emphasis on repeating exercises for additional practice. A sound conversion course.



IANKEY TWO FINGERS TO TOUCH TYPING CONVERSION COURSE

£24.95 • Iansyst •
071 607 5844

User's name: A:SOP Lesson: 2 Exercise: 1 Press EXIT for Help.

ASSIGN 2

Put a mark on each of the keys S T C and B on your keyboard. They will normally be flashing on the keyboard display below this. We suggest that you stick one of the BLACK labels provided on a corner of the top surface of each key. Position it so that you can still see the letter on the top of the key. Please press return to continue:

1 2 3 4 5 6 7 8 9 0 = TAB LOCK SHIFT

Shift 2 X C V B N M Space Bar

User's name: A:SOP Lesson: 6 Exercise: 1 Previous Words/Min: 37 Wpm. Current Session Average: 34 Accuracy: 95%. Previous Accuracy: 96%. Current Session Average: 96%. Press EXIT for Help.

Practically every part of the computer has been designed or redesigned over the last twenty years. Even the Roman alphabet which it uses has been redesigned to make it more readable.

The error symbols mean as follows... c : Capital letter wrong x : Wrong character t : Character(s) missing i : Character inserted --: Characters transposed

Please press return to continue:

Not only does the text in the practice sessions demand the use of all the letters that you have learned in the course, it is also quite interesting to read!

Iansyst have aimed this course at a breed of typist described as the 'hunter and pecker'; far from being a form of rare wildlife, this is a person who has a rough idea of where the required keys are, but a total disregard for which fingers to apply to them.

The loading procedure is the same as that for the Crash course; you simply copy the master disc, boot up your machine with CP/M, insert your working copy, and type in the letter 'I' at the A> prompt. An opening menu reveals eight lessons, the final three devoted to intense practice. There is no indication of a time span here; the idea is that you are building upon knowledge which you already have, gained from a limited experience of using a keyboard, so whether it takes you four hours or four weeks to achieve the lofty status of a fully-fledged touch typist, it is irrelevant.

Your first assignment is a skill test to determine your present ability in terms of both accuracy and speed. You must achieve an accuracy of 90% before you are allowed to continue the course. The first task after that is to concentrate upon dividing your hands on the keyboard. To help you do this, you are given a sheet of multi-coloured stickers, the first of which are used to place on the middle keys (black for S,T,C and red for Y,H,N).

This establishes a kind of frontier system; the stickers are not supposed to cover the keys, but rather to indicate the parameters of the right and left hands' domains. So, everything to the left of the black dots is the responsibility of the left hand, and everything to the right of the red dots is looked after by your right hand. This is a sensible way to start disciplining your wayward digits; indeed, the program does not even mind which fingers are used to press the keys in each half, as long as they belong to the designated hand.

Exploding myths

You are then treated to a section on 'Common myths'. Iankey destroys those old adages such as not being

allowed to look down at the keyboard, and not moving your hands from a hovering state over the home keys. With these friendly assurances in mind, you are ready to continue in relaxed and confident mood.

Because the stickers on the keys extend up into the row of numerals at the top, you are learning both letters and numbers simultaneously. This would probably be quite a task for the beginner, but since Iankey is aimed at the experienced keyboard user, it is an economical and practical approach to covering the subject.

Stick with it

Every finger which is covered brings a new set of stickers on to the keyboard; the result is a very colourful board, which, by the use of bright, eye-catching 'signposts' means that you do not necessarily have to look down to see where those finger territories are.

The text which you are asked to type is interesting - a refreshing change. There is, after all, only so much patience to be had with the reproducing the exploits of the quick brown fox, who, it seems, has been jumping over lazy dogs since typing instruction was first invented.

As with the crash course, you are able to print out or display your performance on screen at any time. Skill levels are also adjustable, and you can hop between lessons if need be. You are automatically asked if you wish to repeat exercises in the early stages, a useful feature, which is missing from the crash course.

This conversion course is both thorough and lively; the instructions are conveyed with humour, but there is a feeling that it is all a bit laid back – it is rather like making the transition between school and university, in that hard and fast rules are replaced by a more liberal and trusting approach. If you interpret this as a more appropriate way to treat those with an element of foreknowledge, then you are well on the way to banishing those bad keyboard habits forever. ■

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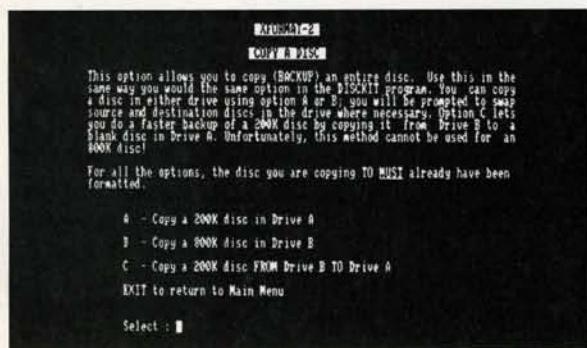
Increase your disc space

Moving up

If your version of CP/M is earlier than 1.4, Amstrad will give it free on return of the master disc (make sure you have a copy in case it goes astray.)

However, I tried operating Xformat2 with CP/M version 1.1 and it worked perfectly. It is, therefore, worth trying your existing CP/M version before going to the trouble of returning it. Xformat2 costs only £9.95 and is available from Moonstone, 31 Clyde Street, Clydebank, Glasgow G81 1PF.

Xformat2 in action



The resulting Xformat2 menu when C is selected for copying



The formatting menu; unlike DISCKIT, Xformat2 won't format while copying

Indexer

Pluses

- ▲ 19k extra, A drive
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- ▲ Low cost

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- ▼ Can't copy and format at the same time
- ▼ Can't copy normal disc

Extra space	4/5
Value for money	5/5
Ease of use	3/5
8000 Plus	
Value verdict	12/15

quickly, the space is gobble up and the dreaded "disc full" notice appears on the screen. For 8512 owners the situation is much better, for they can command no less than 706k on a double density disc in drive B.

Even with the B drive though, extra space would be welcome at times, especially with some of the graphics and multiple font programs which occupy so much, leaving little to work in.

The Xformat2 program gives more space per disc. It formats and copies 3-inch discs to give a usable 192k in drive A instead of 173k, a useful gain of 19k; it gives 784k in drive B in place of the usual 706k, a gain of no less than 78k.

Disks that are formatted for the extra space are automatically recognised by both CP/M and LocoScript (the extra space is indicated on the disc manage-

ment screen). The Xformat2 program is only needed for the initial formatting or for copying.

A further attraction is that in drive A, the normal LocoScript limit of 64 directory entries is increased to 96, which is very useful where a large number of small files, such as addresses, need to be stored.

Using Xformat2

The program, which consists of a single 28k file, is supplied on both sides of a 3-inch disc formatted to 200k. Thus either side can be used, and one side can serve as a backup. To use it, CP/M must first be booted (this must be version 1.4).

At the A prompt, type XFORMAT2 and press [RETURN].

The main menu is now displayed offering a choice of copying, formatting or verifying a disc. Instructions appear on screen along with the menu. If you suddenly realise you are formatting the wrong disc, you can abort the process at any time simply by pressing [EXIT]. This of course doesn't guarantee that all the files are recoverable, but some may be.

Copying with the Xformat2 is easier and quicker than DISCKIT and about the same as using the internal copying within LocoScript 2. The only slight inconvenience if you are in LocoScript is that you must reset the computer, load your operation disc, then go back to LocoScript afterwards.

Small changes

One point to bear in mind is that although LocoScript and CP/M recognise the extra space format, the computer by itself does not. This means that you cannot format start-of-day discs to 200k. These must be the normal 180k mode as it is the only format the computer will load from.

Another point is that, unlike DISCKIT and LocoScript 2, Xformat will not format a blank disc at the same time as copying. Discs must first be formatted to the required standard, either for the A or B drive, and then copied. This does add time to the copying process. The best plan is to format all new discs in advance.

You cannot copy a 180 or 720k disc directly to the 192k and 784k formats. You must copy like to like, which is fair enough. So to make more

room on an existing disc, you have to copy each file individually to M, then from M to a blank disc formatted to the required capacity, (or directly from B to A drive if you have a 8512).

Big blocks and little blocks

So far snags have been relatively minor ones, and for 8256 users, or those using the A drive on a 8512, these seem to be the only ones. For use in the B drive however, there is a more serious drawback.

The blocks in which data is normally sectioned is 1k for drive A and 2k for drive B. This means that the file size is always rounded up to the nearest 1k and 2k.

With Xformat2 formatted discs, the A drive remains the same, using 1k blocks, but with the B drive, the block size is increased to 4k. Thus every file is rounded up to the nearest 4k, which can mean an extra 2k wasted for each file. Thus a file containing 5k is rounded up to 8k instead of to 6k. This obviously makes inroads into the extra capacity.

To see how it would work out, I copied four B drive discs in the manner described above and noted the before and after capacities. In each case, there was still an advantage with the Xformat2 formatted disc, but as more files are added the gap narrows. It follows then, that discs having a large number of small files will occupy much more space, and perhaps at around 40 files the balance could start to go the other way, with less free space than a normally formatted disc. Whether to use Xformat2 for a B-drive disc then, will largely depend on the number of files and their length.

To buy or not to buy

To conclude, the Xformat2 program is an excellent buy for PCW 8256 owners as there are no file-size considerations. The extra space is especially welcome with the limited A drive space, and the extra directory entries are a very useful bonus.

For the PCW 8512 user, Xformat is still a good buy. A useful increase in capacity on the B drive can be obtained, providing the number of files stays below around 40. It is also useful to be able to increase the capacity of the A drive to accommodate a large number of small files. ●

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Vivian Capel shows you how you can increase your disc space with a little help from Moonstone Computing

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Sunny Spells

LocoSpell disguises the deeds of even the most atrocious speller. Sophie Lankenau shows you how to banish spelling mistakes forever

There can be few things worse than noticing a spelling mistake in a document which you have printed out – and were certain was error free at the time of its preparation. LocoSpell puts an end to the possibility of this irritating situation, and, what's more, allows you to tailor a

dictionary of your own to your specific needs. So, put your paperback dictionary to one side, settle down in front of your screen, and take a look at how LocoSpell can help you banish those spelling errors from your work forever.

With LocoSpell installed (see margin for details on loading), go into

editing mode by pressing 'E' for 'Edit' at the disc management screen. Now, press [F7] for 'Spell', and select 'All of document'. The text on screen will waver slightly as LocoSpell checks through for errors, and at the first occurrence of an unfamiliar word, the following menu will appear.

1 This is the first unfamiliar word which LocoSpell detects. The general 'rule' is that the program will question unusual names and the occasional slang word. However, be prepared for the rejection of words which seem quite commonplace; in our document, the words 'payable' and 'detract' were called into question.

2 LocoSpell's 'suggested replacement' words are, for the most part, accurate. However, some of the replacements will cause you a good deal of amusement when they are put in the context of the sentence. In this particular letter, the program threw out 'landmarks' in favour of 'landlords', where it was used to describe the tourist attractions of a town. Similarly, the program thought that 'breakages' should read 'breakfasts'.

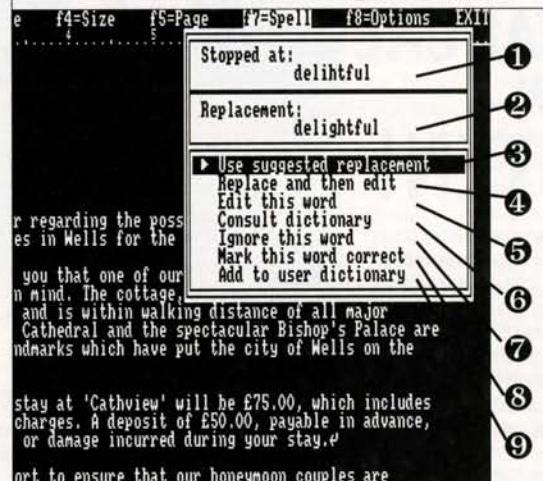
3 You will find that most of the mistakes which LocoSpell isolates are the result of simple typing errors, made by a slip of your fingers on the keyboard. So, when you see the 'Use suggested replacement' option, you are more than likely to agree with what LocoSpell offers as a substitute. In our document, the first paragraph shows the word 'delihtful'; the suggested replacement, 'delightful', is the obvious choice.

4 The 'Replace then Edit' option is a useful way of making rapid adjustments when LocoSpell's 'suggested replacement' is very close to the correct word. For example, the program picks up on the word 'teh' in the second paragraph, a common keyboard slip when typing in 'the' at speed. It suggests 'tea', which we know to be incorrect. Instead of consulting the in-built dictionary, select 'Replace then

'edit', press 'enter' and you are returned to the document with the new word, 'tea' highlighted. All you have to do is make the necessary changes using the delete keys.

5 'Edit this word' is another time saving way of altering a word, but this time when LocoSpell's replacement text bears absolutely no resemblance to the word which you require. Selecting the option highlights the mis-

The heart of the program



spelt word on the screen. You can then edit it in the usual way.

6 'Consult dictionary' allows you to cross-refer with LocoSpell's enormous in-built dictionary to check on a particular spelling. With the option highlighted, press [ENTER] and a portion of the dictionary appears on the right hand side of the screen. The words listed are all related to the first two or three letters of the one which LocoSpell has questioned. You can scroll down the list to find the word you are looking for, then you simply highlight it using the cursor arrow keys, press [ENTER], and it is flowed into your document.

7 'Ignore this word' is a command which is particularly useful when your document is littered with names or 'specialist' terminology. Although LocoSpell clearly isn't familiar with the word it picks out, it could well be your own surname. Selecting 'Ignore' tells the program to continue its search for more legitimate 'errors'.

8 By 'Marking a word correct', you are effectively repeating the 'Ignore' command. Where the program picks out, say, a company name, which you know to be correct, you can 'mark' it thus, and continue. Words which you judge as acceptable in this way are then allocated a 'SiC' code which you can see by pressing the [F8] 'options' key, and calling the codes on to the screen. The difference between this and the 'Ignore' command is that once a word is 'marked correct', the program will not bother to isolate further occurrences of the same word in the document.

9 A second variation on the 'Ignore' theme, 'Add to user dictionary' is the option which enables you to start constructing your own 'dedicated' dictionary. This is invaluable in specialist applications; our document is a letter from holiday cottage rental firm, who have a selection of properties with rather nasty convoluted names like 'Cathview' (obviously located within the sights of a large church or a lady called Catherine).

The likelihood of this name, and others like it, reappearing in the written work of the company is high. Adding them to the user dictionary means that LocoSpell will consider these as acceptable words, and will not interrupt its search to question them in future.

Ask your grammar

The work of LocoSpell in correcting your spelling mistakes is thorough and accurate. However, it will not pick up on matters of grammar and context. In the first paragraph of the example document, the writer has used 'are' instead of 'our' to denote possession. This was ignored in LocoSpell's otherwise meticulous search. You can't have everything!

A closer look :adding your new words to the dictionary, those words whose spelling continually escapes you and word-counting

How to carry out a wordcount



'Words checked' provides LocoScript users with the wordcount facility they've been missing!

When LocoSpell has finished its journey through your document, a menu appears in the middle of the screen. It tells you how many words have been checked, and how many words you have told the program to add to the user dictionary. The first of these pieces of information satisfies those LocoScript critics who complain about the program's inability to carry out a word count. It is likely that you will install LocoSpell on your LocoScript start-of-day disc (once you have used it to check one document, you will be surprised at your newfound dependence upon it in any future text preparation)

Since 'Words checked' means

every word counted, you will find yourself with an automatic facility to have the number of words in a document totalled up for you.

The words which you have asked the program to add to the user dictionary are stored temporarily in the computer's memory, and you have the choice, in the last two options on this menu, to commit them permanently to the user dictionary, (by selecting 'Update the user dictionary') or abandon them

If, during LocoSpell's search, you have not earmarked any words for inclusion in the user dictionary, this lower portion of the menu will not appear.

The price of perfection

LocoSpell is available from Locomotive Software, (0306 740606) priced £19.95. It comes with a separate installation program, so that you can load it on to your LocoScript start-of-day disc. This means that LocoSpell is always available when you are using LocoScript, and there is no need to swap between discs when you need to spell check - or perform a wordcount on - your work.

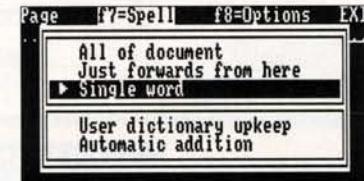
Using LocoSpell in document creation

Calling upon LocoSpell to show you the difference between correct and incorrect spelling need not be the retrospective process which we have seen so far. Even when you are creating a document, you can use the program as a more speedy alternative to leafing through your weary volume of the Complete English Dictionary.

If you begin a word, the spelling of which temporarily escapes you, LocoSpell will come to your aid. You should have an idea of the first one or two letters of the word (unless it is one of those unpleasant psy- words which send the whole theory of phonetic pronunciation hurtling out of the window). Type them in at the relevant

place in your document, and press [F7] for 'Spell'. Selecting the 'Single word' option, followed by [ENTER], summons a mini dictionary of words to the screen, with your rather half-hearted clue at the top. The list contains words which begin with the letter sequence you have; all you have to do is cast your eye over the selection and pick out the one you want to use.

If it isn't evident on the portion shown, just scroll down to the bottom of the menu box, and new words will gradually appear on screen. Select the appropriate word, press [ENTER] and hey presto, it is transported to the place in the text where the cursor was left hovering.



Use this option as an on-screen dictionary

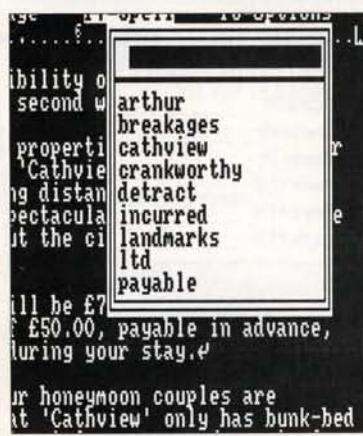


A four letter clue gives a list of possible words

Native instinct

As you would expect from a software producer who provides the PCW's native word processor, LocoScript, the LocoSpell dictionary includes the name of its parent computer. Here at 8000 Plus, we have cause to use an Apple Macintosh when we put the magazine together every month. When you invoke the aid of the Mac's spell-checking program, it stops at every instance of the letter sequence PCW and has the audacity to call it a 'suspect word'. Cheek!

Updating your dictionary



Your own user dictionary begins to take shape.

As we have seen, the LocoSpell search offers you the chance to add words to your own user dictionary. When you return to the disc management screen after using LocoSpell, you will notice that the 'USERSPEL.DCT' is stored on the M: drive. A warning message appears reminding you to copy this file on to disc - if you don't, all the information which you have carefully set aside for future use will be lost.

There may well be times when you need to edit your dictionary, either adding or deleting insertions. To do this, go into a document and press [F7] for spell. The option at the foot of the small opening menu, 'User dictionary upkeep' allows you to inspect the store

of words which you have, and make any changes. Once you have pressed [ENTER], a portion - or all, if you have only made a few additions - of the user dictionary will appear. To add an item (for our document, perhaps another of those charming property names), place the cursor in the space at the top of the list, and press the [-] key to clear the area. Type in your addition, and press [ENTER]; LocoSpell will then flow the new word to its correct alphabetical location in the user dictionary.

Removing an item is a simple and somewhat brutal affair; highlight the offending word, press the [-] key, and it disappears forever.

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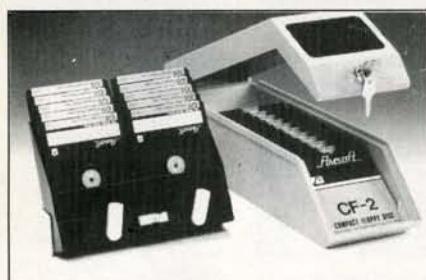
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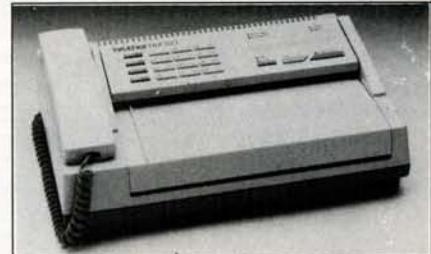
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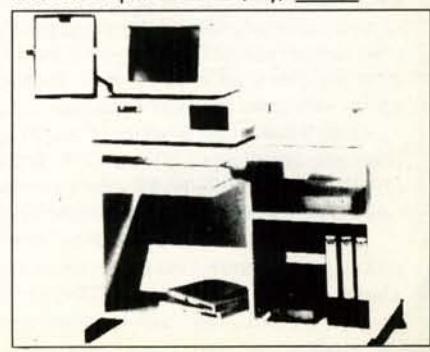
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Flippin' Marvellous

Here are just 10 ways in which Flipper can make your PCW working life that little bit easier; Rob Ainsley investigates the options

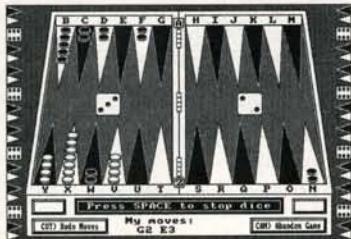
LocoScript/Protext to database/spreadsheet

Name	Ron NUMBER
Address	7 Cleo Lane Kirk Douglass Hants
Books borrowed	X Rays: Theory and Practice Cavy Breeding (with recipe book) Hardvark Keeping For Beginners Zebra Crossings: A British History
Date borrowed	6/01/54

Masterfile, AtLast or Mini Office, say) or a spreadsheet (to keep financial figures, with Mini Office or SuperCalc or the Cracker, for example) you often need to write reports based on the information stored in them. With Flipper safely installed, pressing the [SHIFT] [EXTRA] and [EXIT] keys together lets you hop across to the spreadsheet or database, look up a few figures, hop back to LocoScript or Protext and write about it, and then hop back to the spreadsheet or database again and so on. ●

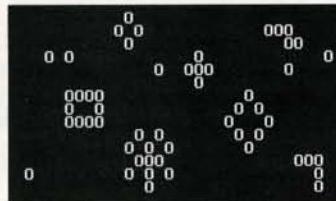
This is one of the most obvious uses to which you can put Flipper. If you use a database (to catalogue your customers or club members, with

The "Emergency Exit"



When you're playing one of the many games available for the PCW - Tetris, backgammon or whatever - you need to convince someone that you're not just wasting time. So, get Flipper to set up a tedious-looking LocoScript letter that you can quickly flip to from your game whenever your boss appears! ●

LocoScript/Protext to Game of Life



Ever get bored while working on that LocoScript or Protext document? Set up Flipper running Protext or LocoScript on the one hand and the game of life on the other and [SHIFT] [EXTRA] [EXIT] lets you leave word processing to watch a relaxing

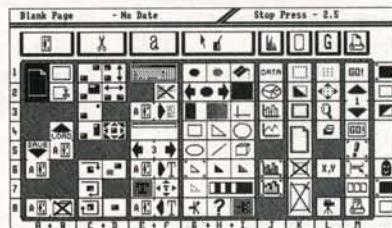
computerised fishtank. The Game of Life works like this. You specify where bacteria are to start with on the screen and they then breed (if there are two close together) or die (of loneliness if there are none next to it, or of overcrowding if there are three together). Each generation passes and finally you end up with stable repeating patterns.

Here's how to get the game of life set up. At the CP/M A> prompt insert your LocoScript 1 disc (or CP/M disc if you have a 9512) and type MAIL232 [RETURN]. Wait for the screen to clear and press [F3]. Move the cursor down to the last option Transfer as ASCII and press [EXTRA] P

The screen goes blank apart from a cursor. Now you can set up a pattern. Use the arrow keys to move the cursor and press [RETURN] where a bacterium is to go. Another [RETURN] deletes a bacterium. Once ready, just press [SPACE] and watch the generations roll by ... ●

LocoScript to Stop Press

You can't edit text in Stop Press - if it's too big for the space you've flown it into, hard luck; you must re-edit it in



LocoScript. With Flipper you can hop across to LocoScript and do the required editing, save the document, hop back to Stop Press, and reflow it. ●

```
M: group 0/LETTER .1 Editing text.
Layout 1 Pi12 LS1 CR+0 LP6
f1=Actions f2=Layout f3=Style f4=Size
Ron Number
7 Cleo Lane
Kirk Douglass
Hants
Sep 5 1990
Dear Mr Number
According to our comprehensive database
books on loan from the club since Janu
Hardvark Keeping For Beginnerse
Cavy Breeding (with recipe book)e
X Rays: Theory and Practicee
Zebra Crossings: A British Historye
At one shilling (now 5p) per book per
amounts to:e
5p x 12 x 36 x 4 = £86.40e
Please pay up within 14 days, or else
lists of Which, Reader's Digest, and s
```

Instant LocoScript calculator

```
Ok
print 0.05*12*36*4
86.4
```

Just get BASIC running in one half (insert your CP/M disc and type BASIC at the A> after Flipper is set up) and LocoScript in the other. To calculate something, flip across from LocoScript. Suppose you want the VAT on £4.99; you'd type PRINT 4.99*1.15 [RETURN] and have the answer. Here are some examples of more calculations.

4.8 times 5 times 3.2 PRINT 4.8*5*3.2
17.7 minus 5.4 PRINT 17.7-5.4

To get the result printed on the printer instead of the screen, so that results are visible on flipping, use LPRINT for PRINT. ●

Ever felt you could do with another pair of hands? That's what Flipper does for your PCW. It effectively splits the machine into two, so that by merely pressing [SHIFT] [EXTRA] and [EXIT] (as you'd normally do to reset it) you hop across from one to the other.

For example, you can be editing a LocoScript 2 document, press [SHIFT] [EXTRA] [EXIT], and

instantly the LocoScript document disappears and you're in the middle of a BASIC program that calculates the number of words in your document. Press [SHIFT] [EXTRA] and [EXIT] again and you're back where you left off in LocoScript 2.

If you use CP/M programs (Masterfile, Mini Office, Protext, DTP programs, BASIC and so on) you can have one of these running in one half and LocoScript 2 running in the other

half. Or, alternatively, have two CP/M programs running, or even (if you have Flipper 2 Plus and the Isenstein add-on memory board) two LocoScript 2s running - handy for being able to edit two documents at once!

Pictured below are a few ideas of how Flipper can work for you. Unless otherwise stated, all you need is Flipper and LocoScript 2 (which 9512 owners have already).

Blank screen



Want to blank the screen when leaving your PCW in LocoScript for a while, to prevent damage to the display? Here's how. Set up BASIC in one half and

LocoScript in the other. To blank the screen, flip across and type OUT 248,8 [RETURN]. To return to normal type OUT 248,7. If you flip to LocoScript with the screen blank you will still have the blank screen. ●

Printer idle. Using M:
Page 1 line 30/54
f5=Page f7=Spell f8=Options EXIT

base records, you have had the following
January 6, 1954; e

er month for 36 years, the fine payable

e we will send your name to the mailing
sixteen major catalogues. e

Sorting alphabetically

```
Ok
run "sort"
Name of file to be sorted? BOOKS.TMP
Name of file to put result in? BOOKS.SRT
Ok
```

Another useful utility you can have available in BASIC to flip to from LocoScript or Protext, is the sorting program from the Tips collection book. (See this month's tipoffs). It will sort the lines of a document into alphabetical order. In LocoScript, make an ASCII file of your document. Give the name of this new file when sorting in BASIC. To view the result, flip to LocoScript and create a new file. Press [f7] and 'Insert' the name you gave for the sorted file created by SORT.BAS. Protext files can be sorted without alteration. ●

Multiple copying

```
A>pip a:[g3]=b:*.let[g6]
COPYING -
DAVES.LET
BBC.LET
SHORT.LET
A>■
```

Ever wanted to copy a whole load of files in LocoScript from one group to another and had to do it tediously one-by-one? Here's the smart way. Set up Flipper with CP/M in one half and LocoScript in the other. At the A> in the CP/M half insert the CP/M disc and type PIP [RETURN]. At the * prompt flip back to LocoScript.

When you want to copy files, insert the disc with the files to be copied and flip to CP/M and the * prompt. Suppose you want to copy all files from group 7 to group 3; then type A:[G3]=A:*.*[G7] or B:[G3]=B:*.*[G7] for the B drive. End with [RETURN].

Flip across to LocoScript and carry on as normal. Sneaky types will guess that for example M:[G3]=A:*.LET[G7] copies just those files ending in .LET from A to M, while similarly B:[G3]=A:CHAPTER.*[G7] copies just CHAPTER.1, CHAPTER.2, CHAPTER.TEN and so on from A to B. ●

Word counter for LocoScript

```
Ok
run "count2"
Enter name of LocoScript file to be counted? LETTER.1
Counting...
Total number of words in LETTER.1 is 964
Ok
```

We all know that you can't count words in LocoScript. Flipper lets you do that. All you need is the LocoScript word counter program, COUNT2.BAS, that is featured in the 8000 Tips Collection Book (see this month's Tipoffs). Set up LocoScript on the one hand and the word counter on the other by typing BASIC at the A> prompt in CP/M once Flipper is set up; insert the disc with COUNT2.BAS on it and type RUN "COUNT2 [RETURN]. Save your LocoScript document, flip across and follow the prompts. You get a pretty quick word count, and [SHIFT] [EXTRA] [EXIT] takes you back to LocoScript where you can adjust the length if necessary. ●

Green screen LocoScript

Ok
run "sort"
Name of file to be sorted? BOOKS.TMP
Name of file to put result in? BOOKS.SRT
Ok

Dear Mr. Reader,
According to our comprehensive database records, you have had the following books on loan from the club since January 6, 1954:
Barcode Meaning for Beginner
Cook Book (with recipe book)
Simple Computing
Basic Computing
A Little History
It was \$1.00 per book per month for 36 years, the fine payable
amounts total:
\$12 x 36 x 4 = \$288.00
Please pay up within 30 days, or else we will send your name to the mailing
list of Hatch, Reader's Digest, and sixteen major catalogues. e

For bright days a reversed-out screen (i.e. black letters on a green background) can be easier to read. Set Flipper up with CP/M and LocoScript. Flip to CP/M, insert your CP/M disc and type PALETTE 1,0 [RETURN]. The screen reverses out. Now flip over to LocoScript and carry on as normal; the screen remains black-on-green. If

LocoScript changes back to green-on-black (when you create a document, for example) just flip over to CP/M and straight back. The screen will revert to black-on-green.

To restore normality, flip to CP/M, insert your CP/M disc and type PALETTE 0,1 [RETURN]. ●

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3.5in/2.0in £6.30

PLUS

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CARR.

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Keep it in the Family

Sophie Lankenau looks at a new and innovative piece of software which calculates your eligibility for any government means-tested benefit

Evesham Welfare Benefits Program

£100.00 ● Evesham Welfare Benefits ● 0386 443340

The range of government benefits now on offer is so comprehensive that many people are not aware of their potential entitlement to the financial support available.

If the terms family credit, income support, and, more recently, community charge benefit tend to leave you feeling dazed, lost in a haze of confusion, do not worry. You are probably not alone. The good news is that now, you have the chance to have the terms defined and your entitlement calculated with the help of your PCW.

Evesham Welfare Benefits have devised a program, for use at Citizens Advice Bureaux, Law Centres and the like – or for your own personal use – which will help you work out just where you stand.

The program itself has been in existence for five years but only recently has it been adapted for use on the PCW, a popular choice of computing tool for such institutions, it would seem; the advent of the poll tax has precipitated an update of the information available, to include calculations on community charge benefit and the hitherto faintly mysterious transitional relief.

The program is designed to run on both the PCW 8000 series, and the 9512. It is also PC and IBM compatible, so whatever your machine, the chances are that you can install the software and start checking out your benefit eligibility straight away.

Once you have copied the master disc, the program is self-booting, so you will be pleased to hear that loading it is a quick and trouble free affair.

That's rich!

You are asked initially to enter the date and the name and address of the person on whose behalf you are making the enquiry; the program refers to the querant as the "client." This information plays no part in the range of calculations which the program goes on to make, so you could just as feasibly call your client Donald Trump and he wouldn't be instantly disqualified from all benefit because of it.

Any name – or even no name at all

– will suffice. You are then asked if the client is 'effectively' married. A strange turn of phrase, that. What on earth does it mean?

This will be the first of many occasions on your journey through the program which will demand the assistance of the built in 'HELP' section. Here you learn that 'effective' marriage is defined as being 'legally married and not permanently separated' or 'cohabiting on a permanent basis'. Polygamous marriages are deemed to be 'effective', and indeed the earnings of the surplus wives/husbands are taken into account when benefit calculations are made.

The questions cover everything from dependent children, earnings and accommodation particulars, to maintenance payments and rateable value of the client's dwelling. From this, calculations relating to family credit, income support and community charge benefit are made. We used the details of a fictitious citizen in reasonably adequate financial circumstances to check exactly what he was and was not entitled to.

Our client is, you've guessed it, Mr John Smith. If you are called John Smith and you are tired of seeing your name used to denote an example of a typical twentieth century male with 2.2 children and a semi-detached in Surbiton, we apologise. Howard Constantine Amadeus Wilfred Crunchbuttock-Blenkinsop simply didn't fit on to the screen.

You can depend on me

The information which follows represents the sequence in which the questions are asked. So, Mr Smith is 45 years old, and is married to Mrs Smith, aged 41, and they have two children. One of the Smithettes is a dependent child between the age of 11 and 15, and the other is a dependent aged between 16 and 17.

At this point you are told that the Smiths are entitled to £14.50 child benefit. There is no sickness or disability in the family.

Housing status is then dealt with; this client is category D, which stands for joint owner occupier. Monthly mortgage interest payments are entered at £375, which is a weekly commitment of £86.54.

The program then moves on to the topic of the moment, the

What's in it for you?

Those who did not pay rates or had rates paid on their behalf AND are either of pensionable age or entitled to a disability premium can apply for EXTRA RELIEF when they will have ASSUMED RATES of zero.

All transitional and extra relief is lost if the recipient moves house voluntarily. Transitional relief is further reduced by 13.00 per year until it is abolished in the year 1993/94 (1992/93 in Scotland)

In Scotland Transitional relief will be back dated to 1989/90.

PRESS ANY KEY TO CONTINUE

The program has a well researched 'Help' section to shed some light on government benefit policy. 'Transitional relief' is explained here.

CALCULATION OF FAMILY CREDIT

ALLOWANCES

FC ADULT ALLOWANCE	£ 36.35
FC ALLOWANCE FOR CHILDREN 11-15	£ 14.15
1 CHILD AT £ 14.15 EACH	
FC ALLOWANCE FOR CHILDREN 16-17	£ 17.00
1 CHILD AT £ 17.00 EACH	
MAXIMUM FAMILY CREDIT	£ 68.30

INCOME

NET WEEKLY WAGE OF CLIENT	£225.00
NOTIONAL INCOME FROM CLAIMANT'S CAPITAL	£ 8.00
INCOME USED FOR FC CALCULATION	£233.00

FC THRESHOLD	£ 57.60
--------------	---------

$$\text{FAMILY CREDIT} = 68.30 - 0.7 \times (233 - 57.6)$$

FAMILY CREDIT = 0.00

PRESS ANY KEY TO CONTINUE

When all of a client's details are entered, a summary of their benefit entitlements is displayed. Mr Smith is not eligible for Family Credit.

COMMUNITY CHARGE BENEFITS

ANNUAL COMMUNITY CHARGE BENEFIT	£ 0.00
ANNUAL COMMUNITY CHARGE PAYABLE	£363.00
JOINT ANNUAL C.C. LIABILITY	£726.00
INDIVIDUAL WEEKLY COMMUNITY CHARGE BENEFIT	£ 0.00
INDIVIDUAL WEEKLY COMMUNITY CHARGE PAYABLE	£ 6.98
JOINT WEEKLY C.C. LIABILITY	£ 13.96

ON THE BASIS OF 10 INSTALMENTS PER YEAR

INDIVIDUAL COMMUNITY CHARGE INSTALMENT IS £ 36.30

PRESS ANY KEY TO CONTINUE

The community charge benefit calculation. Mr Smith is not entitled to benefit, but transitional relief reduces his charge from £38.50 to £36.30 per instalment.

Calculate your benefit

Poll facts

Despite the unpopularity of the poll tax, there are exemptions to be made. So, if you are a resident hospital patient, (or a resident in a nursing home), a monk, nun, or a Community Service Volunteer, you are not liable for the charge. There are many other exemptions, applicable to the elderly, the disabled and others in a low income bracket. Beware, though, of non-payment; if you are a remand prisoner held in detention for non-payment of the charge, you are not exempt from payment, regardless of the length of your stay at Her Majesty's pleasure.

community charge.

Here you have to differentiate between 'assumed' and 'actual' charges; a quick glance at the 'HELP' menu will inform you which is which (see screenshot 1). You have to know both the rateable value of the property, and the 'poundage'. Once again, this is a feature of the program which reinforces its non-suitability for purchase by the individual; although jargon is explained, you can still be left in the dark when you come face to face with such opaque terminology.

Mr Smith's salary is entered; he earns a net weekly wage of £225, without any further income (from his wife's earnings) other than child benefit. He doesn't pay maintenance, and he is not paying a parental contribution to a child's student grant. Capital (or savings) must, at this point, be declared; Mr Smith has a nest egg of £5000 tucked away, and the program immediately calculates that this brings him a 'notional' income of £8.00 per week.

The rateable value of his home is £550, but his local authority has set a community charge of £385 per person. The combined liability of his family for the community charge thus exceeds his previous outgoings in terms of rates.

The long and short of it

Once all this information has been entered, the program finishes its line of questioning, and presents you with the option to have the final calculations and assessments printed out or displayed

on the screen.

A very useful feature of the program now comes into play. There are three levels of detail; you can select 'all calculations', or a 'short' or 'long' summary only. The second screenshot shows how the program disqualifies Mr Smith's family from receiving family credit. As you will note, his net weekly wage far exceeds the threshold for qualification.

However, as you will see on the following page, the leaflets explaining family credit are somewhat misleading when it comes to working out just who is, and who is not, eligible.

Happily though, all is not lost for the Smith family; the third screenshot shows the program's findings on Mr Smith's position regarding the community charge. Both he and his wife have been awarded transitional relief of £22.00 per annum on their poll tax.

The program works out that on the basis of ten installments, the couple will pay £36.30 instead of the expected £38.50. Not quite enough of a saving to make them vote Conservative, perhaps, but a welcome relief just the same.

So, our test case reveals what the program is able to offer you. It is not possible to select a specific area for calculations to be made; the program follows a sequence, which provokes certain questions depending on the circumstances of the client. So, even if you know that you only want to determine, say, eligibility for housing benefit, you have to go through the

sequence of questions which will lead you to that information.

Since the program only takes a maximum of about twenty minutes to run to completion, this is no hardship; indeed, it is well worth making use of the 'help' sections just to become fully informed of all the quirks in the whole glorious system of means-tested government benefits.

The program has been compiled, not surprisingly, with a great degree of knowledge about state benefits in general. For the price of the package, Evesham Welfare Benefits will provide updates to the following March after purchase, when all the benefit rates usually change. Thereafter, the program's creators will carry out a full year's information update for £50.00. Steep, perhaps, for the individual; after all, once your own eligibility has been determined, there is little further use to be derived from the program, unless all your friends and relations are trusting enough to disclose their darkest financial secrets to you, and slip you a few pounds for the privilege. That seems unlikely.

The program is not however, directed at the individual; its producers do not recommend that it is a cost effective way of finding out information for one person alone.

We shall interrogate you

Documentation accompanying the software is lucid and well written. It does not offer a demystification of jargon – but rather navigates you through the series of questions which you will face. Lines of questioning do, of course, differ depending on the individual circumstances of each client.

Our client replied 'no' to the enquiry about disability in his family, so therefore cheerfully skipped on to the next section. Had he replied 'yes', he would have been asked to respond to a completely different set of questions.

Each response which you give is followed by a screen prompt offering you the chance to alter the information; as Evesham so rightly point out, the American phrase 'Garbage in, garbage out' is never more appropriate than in this case. So, if you accidentally key in your weekly wage as £800.00 instead of £80.00, you will not be spared from the somewhat inevitable disclosure that you aren't entitled to any benefits whatsoever.

All in all, the Evesham Welfare Benefits Program represents excellent value for money for large advisory bodies such as Citizens' Advice Bureaux. It is a means of quick and easy reference, through a course of fairly idiot-proof yes or no answers. Very little leeway is provided for the entry of erroneous information. Similarly, the backup provided is both well researched and reasonably priced, considering the complicated nature of the subject matter, and the responsibility of the manufacturers to ensure accuracy. ●

THE PROOF OF THE PROGRAM...

The Evesham Welfare Benefits program has been in existence for five years, and is used in a number of Citizens' Advice Bureaux throughout the country. We contacted Mrs Mary Kinghorn, of the Fleet and District CAB in Hampshire, who uses the package on an office PCW 8256 every day.

The Fleet office has had the program since 1987. "We have been supplied with regular updates since our initial investment in the software," explained Mrs Kinghorn, "This has helped us cater for the many changes in the state benefit system since that time."

Now, approximately 20 staff have been trained to use the program to help members of the public assess their benefit eligibility. So, how quickly did the staff pick up the operation of Evesham's software? "Learning how to run the program and input the information is very simple" said Mrs Kinghorn. "Because the input consists of straightforward 'yes' or 'no' answers, it couldn't be simpler to learn. Obviously, you cannot operate it without knowledge of the benefit system, but even for someone with no computer or data input experience at all, it would only take about twenty minutes to run from start to finish."

If such software is to be used to determine people's financial status, accuracy is clearly of paramount importance. 'The calculations which the program makes are accurate to within a couple of pence of what the council says' said Mrs Kinghorn, "so we are able to

rely totally on the program's findings to instruct our clients on their position. We never go into the finer details of those few pence though, because what people tell us often differs from what they have told the council. Roy Bailey" – the man behind the program – "always includes a sort of disclaimer in the updates to the effect that the program is only as accurate as the information supplied by the client. This is absolutely right," she added.

The Fleet and District CAB use the program mainly for the calculation of family credit and housing benefit. "We haven't had too many enquiries about the community charge, whether for benefit or transitional relief" said Mrs Kinghorn. "I suppose we are averaging at about 10 a week at the moment".

Clients have a case sheet which notes details of their enquiries. "That is where the Evesham system comes into its own" explained Mrs Kinghorn. "Once a client's calculations have been made, we are able to printout a record of the information and keep it with any other notes we have on that person. This makes for quick and easy reference when a client returns to us; the program does not store individual records, so every time you complete someone's 'case', unless you do a print out then you have to start from scratch the next time."

And the final word from the Fleet and District CAB? "We use it so much now – we certainly wouldn't like to be without it!"

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This includes such machines as the Amstrad 1512/1640/2086 and most true compatibles.

Software is provided with all versions of the kit to allow AUTOMATIC DETECTION of which Amstrad disk format you are reading, making the kit very simple to use. The kit will allow you to READ and WRITE files from both CP/M and Locoscript.

The versions of the kit available are:-

FD4 board only - FD4 board and Cable kit - FD4 board, cable kit and controller card - FD4 cased drive, inc. cables etc.
Formats supported by the software provided include:- Amstrad 464, 664, 6128, PCW256, PCW8512 and PCW9512

Access



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Living Legends

Follow our 10 simple steps to reach a state of perfect keyboard cleanliness!



Spare parts

Don't attempt any of the keyboard maintenance that we are describing on these pages if your machine is still under guarantee. If something goes wrong, you will no longer be covered. On the other hand, if an out-of-warranty keyboard develops what looks to be an irreparable fault, the good news is that a company in Preston called CPC (0772 555034) can provide you with the spare parts to get it going again.

1 Remove the cable that connects the keyboard to the monitor and place keyboard upside down on a firm, flat surface. Remove the six Philips screws and place them on the paper, labelling them as you go.

If you can, remember to "mark" all items that you remove in this way so that you can be sure of restoring them to their rightful place when it comes to reassembling the keyboard.

2 Gently separate the top and bottom covers of the keyboard and lift out the main key section. At this point, a quick clean of the plastic top and bottom section using cotton wool or soft cloth soaked in a small amount of white spirit will pep up the overall appearance of the peripheral and remove all the dust and gunk that has inevitably accumulated there.

Place these parts safely on one side.

3 Again, turn the key unit upside down and remove the two screws which hold the small printed circuit (A above) to the board. Put it to one side with the keyboard cover. Don't pick the circuit board up unless you can do so by its edges; resist the urge to clean it too.

4 Remove the metal backing plate by pushing each of the plastic hooks through the holes. Two pairs of hands would come in useful here to work at each end of the plate. Remove it and give it a good clean.

5 Lift off the plastic sensor sheet (B). Again, don't try and clean it; just blow the dust off gently. Put it to one side with the other items, taking

care all the time not to place any strain on the ribbon cables which connect it to the circuit board.

6 Remove each key top by exerting some quite firm pressure on each of the two retaining hooks (C and D) towards the key stem. After you've done it a few times, you will quickly develop the knack; the keys should just pop off. As always, the golden rule is, don't force it. Firm pressure should be enough to do the job.

When the key pops out underneath, be careful not to lose the small springs. Place each key in order on a second piece of paper. Three keys (the [SHIFT], [RETURN] and space bar keys) have retaining metal bars which should be levered out gently before you attempt to remove the keys themselves. If you are unsure about this stage, don't do it.

Clean your keyboard

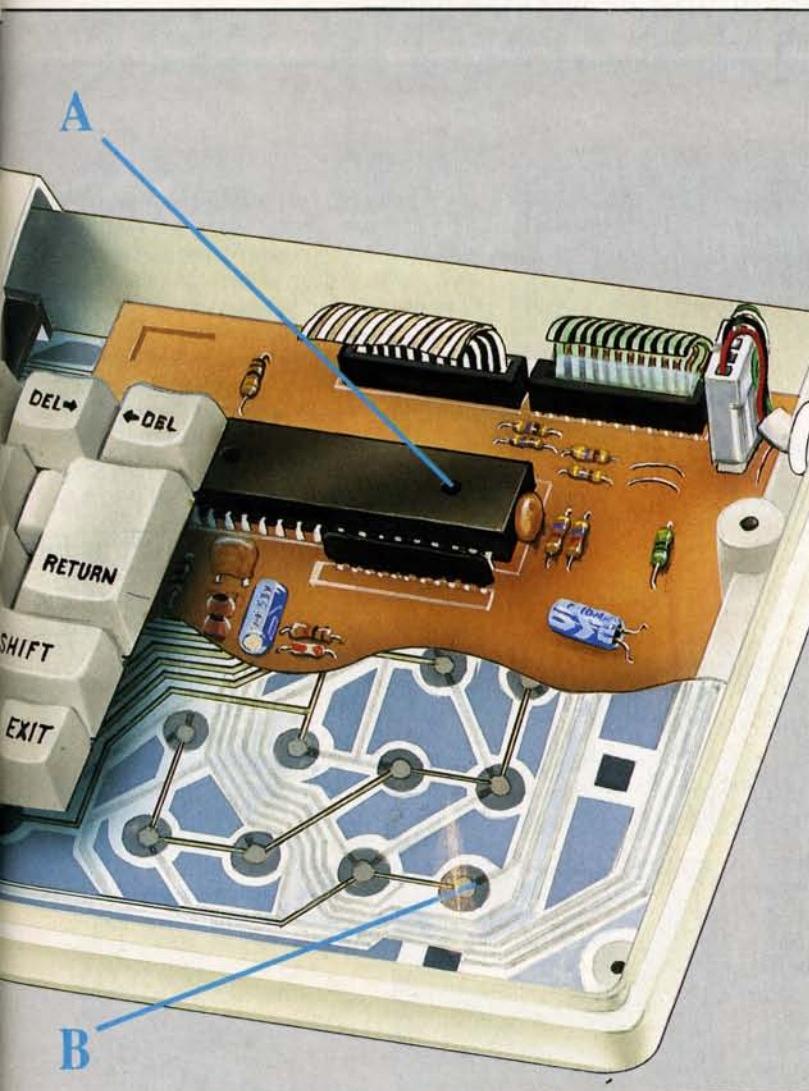
Are you currently experiencing that most irritating of plagues brought about by nothing more serious than a dirty keyboard? Do you find that those keys to which you have the most frequent recourse – like 'a's and 'e's – are now beginning to stick to the extent that nothing less than the delicate application of a sledgehammer will reproduce the character in question on your screen? For the casual user, this may not prove to be too much

of a problem; for the dedicated touch-typist, on the other hand, it can spell disaster – if you're lucky.

So how do you solve this problem? One of the easiest methods is to 'phone up your local supplier and order a new keyboard; this is not, however, the most cost-effective remedy that springs to mind. Have you, on the other hand, ever considered dismantling the whole keyboard, and going through the steps of cleaning and lubricating it yourself.

You should only go ahead with the operation if you are confident of being able to handle it with extreme care and caution.

To perform this major clean-up, you will need the following items: one Philips (Posidrive or Star) screwdriver, a pack of cotton buds, some cotton wool or a soft cloth, a bottle of white spirit and a tube of Electrolube (or contact cleaner lubricant available from any good electronic component suppliers). ●



Clean around the keys as best you can.

7 Using cotton buds with small amounts of white spirit, clean all parts. Take special interest in cleaning the key-top stems and the hole that each stem occupies; it's the dirt that slowly accumulates in these nooks and crannies which causes the keys to stick in the first place.

8 Give each key plenty of time to dry thoroughly before attempting to replace them on the metal backing plate. Putting them back in is easier than removing them, but remember, never, ever, use excessive pressure.

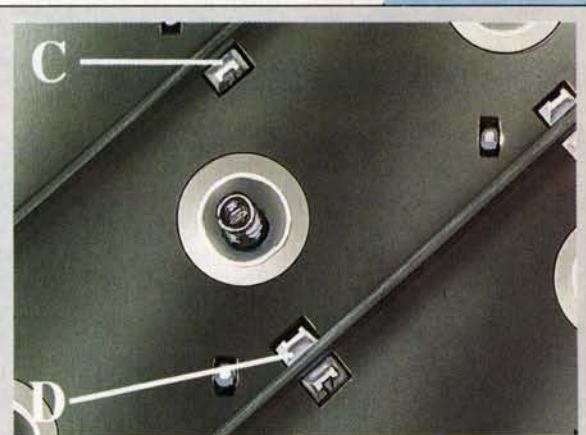
9 Next, lubricate the keys. Use the minimum of lubricant that you can get away with and always wipe away any excess with a cotton bud. The only parts which should be lubricated are the key-top stems. To do this, press each key

down and from the back of the board, squirt a very small amount of lubricant directly on to the black key-top stem using the plastic tube provided. The lubricant will spread around the stem and will lubricate the hole as the key is released. Repeat the process for each key.

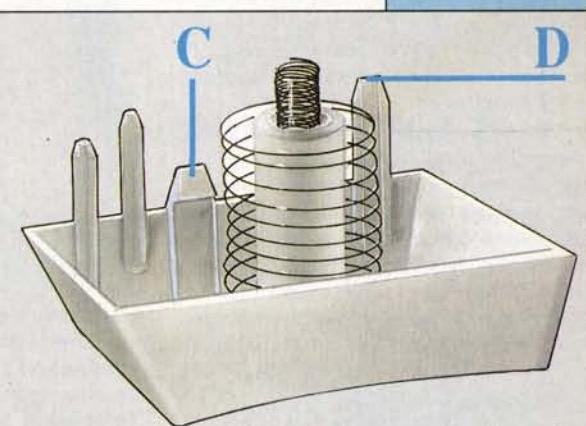
10 Now reassemble the keyboard by reversing the dismantling process. Make certain that all 18 hooks are pushed firmly into the metal plate.

Check that the small keyboard to monitor cable is hooked into the hole at the side of the case as the final stage of assembling the top and bottom covers is carried out. Try not to overtighten any screws.

With a bit of luck, you should now have a pile of dirty cotton buds by your side, a slight headache but a clean, as-good-as-new keyboard that is ready for the off.



This illustration shows the underside of the metal backing plate into which the keys are clipped. To remove them, simply press inwards and down on the two visible key stems C and D indicated above and below. The key will pop out.



This is how each key will look when it has been removed from the metal backing plate. C and D are the stems visible from the other side of the plate when you remove the key. Be careful not to lose the small metal spring shown here when the key pops off.

Character deficiency

Finally, are the legends on your key-tops fading into oblivion due to constant use? How can they be restored? Try using a permanent black pen with a very fine point. These, it has to be said, are not easy to find, but a good quality stationer should stock them (they may be called "overhead projection markers" or something equally trendy).

The pen should, when used on plastic, dry within a second or two and not show any signs of smearing if you wipe it with a finger. First experiment on a little-used key to check that the substance you're using doesn't either "melt" or damage the keys. Touch up each letter and then, using an artist's picture varnish, lightly varnish each keytop.

A useful job well done. What more can we say? Happy typing!

Cover story

One of the best things you can do to avoid the invasion of marauding dust and coffee into your keyboard while you're not using it is to invest in a set of dust covers for your PCW. Dust covers are supplied in a pack of three - for the monitor and the printer as well. Read through the 8000 Plus advertisements to find stockist details.

Hard day's night

Regular Speakeasy guest David Wilson tells us why he shuns ergonomics in favour of his own very distinctive working habits

The other day I happened to be reading an article in *The Guardian* about the risks and symptoms of the dreaded Repetitive Strain Injury (or tenosynovitis, for the more able-mouthed among us). This one was even more terrifying than usual, because it listed, in minute (almost gleeful) detail, the most dangerous mistakes that it is humanly possible to commit when typing at a keyboard over protracted periods (apart from writing for 8000 Plus, that is).

It gave me an itchy feeling at the back of my neck, because this list could only have been compiled by someone with a fairly intimate knowledge of my own keyboard working habits. What a terrible shock to the system it was to discover that my most innocuous-seeming companion, the cat, was, in reality, a stringer for *The Guardian*...

Anyway, I thought that if I were to give you a pen-portrait of my working style, it would serve as some kind of a perverse reassurance tactic. However careless you think you're being, you're bound to be a paragon of rectitude in comparison with my long-entrenched and ill-formed habits.

The night train

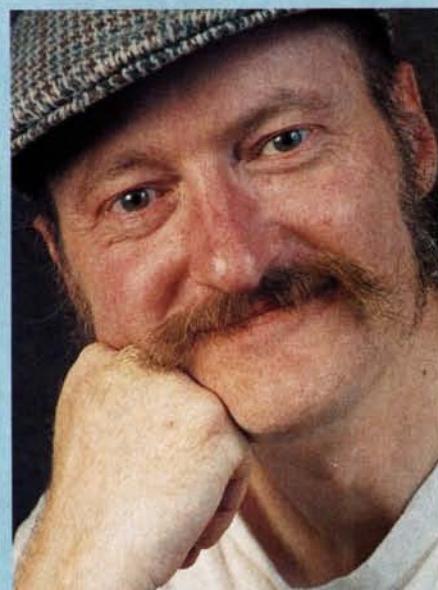
First of all, my working hours are just a smidgeon unusual – although, as I always say, there are millions of people in Chicago whose schedule is exactly the same as mine. I usually bound from my bed, full off joie de vivre, as soon as the one o'clock news has finished and, generally breakfast on a Gauloise.

In the afternoon, I either struggle futilely with my correspondence or else pay a visit or two to some of my less demanding (and therefore, more deserving) clients. The evening has a rather unwelcome tendency to pass in a vague kind of blur; generally, by the time midnight arrives, I'm ready to settle down at the keyboard of my PCW. When I say settle, I really do mean settle.

My PCW teeters on an occasional table, which is older than I am and has a utility mark to prove it; I generally - wait for it - sprawl on a long settee. The keyboard nestles in the crook of my left elbow, with its right-hand side supported by my upturned left thigh. I hope you're visualising all this.

Are you sitting comfortably?

Whenever expert typists catch a glimpse of me at work, I realise how the human race must look to a three-headed calf in a side-show. On my friends' faces, I see that same expression of amusement mingled with disbelief.



Repetitive Strain Injury? That's one ailment regular Speakeasy columnist, David Wilson, doesn't suffer from

Because I like to give top priority to the total comfort of the major parts of my body, my fingers have to fight their way to the keyboard as best they can. My right arm tends to rest easily on my stomach, but my left arm has to go round the back of the keyboard, eventually reappearing by the Amstrad logo.

My hands eventually arrive at the keys, not side by side, but facing each other menacingly like two tarantulas fighting over sacred territory. The fact that I am capable of churning out thirty words a minute from this position is usually attributed to my having entered a pact with demons.

As you can imagine, once I get myself ensconced like this, I don't like to move unless it's absolutely necessary; the value of working while the straight folk sleep soon becomes very apparent. Between midnight and seven in the morning, on-one telephones me, no-one rings the doorbell, and, above all, no-one asks if I saw *World in Action* - or whatever else constituted popular viewing - last night.

Whenever inspiration fails, I move my head six inches to one side, grab the remote-control, and see what's on TV. Take my word for it, there's nothing like the programmes on offer at a quarter to four in the morning for making you want to get back to work ...

Writers' aids

If the experts are to be believed, I should have

been a twisted, wizened wreck donkeys' years ago. Why haven't I got acute myopia, seized-up finger-joints, and a spine like a staircase? You will have to take my word for it that I haven't got any of these things; I think the reason is that I was never taught the right way to do it.

When I have to use the computer in a client's office, I feel like the proverbial fish out of water. Sitting in an ergonomically designed chair, at just the right height and distance from the monitor, I have to fight back an almost overwhelming temptation to curl up on the floor with the keyboard between my knees.

I can usually bluff my way out of this before complete hysteria sets in; I simply say that there's a special manual I have to consult, and that I'll finish the job at home. One of the main things that I miss, apart from my comfort, is the by now mandatory lump of Blu-Tack which is always stuck to the side of my PCW monitor.

Blu-Tack has, no doubt, a thousand and one uses; the most important one for me, however, is that it is intensely satisfying to play with on those odd occasions when I find myself in the midst of mental strife with a particular program or article.

I'm glad that it's guaranteed non-toxic, because the lump keeps getting smaller and smaller. Where does it go to?

Write of way

I can almost see the disapprovingly pursed lips and raised eyebrows of those of you who've never seen a Reader's Digest article about Freudian analysis, so I'll go back to the subject of RSI (or Repetitive Strain Injury).

I'm sure that I'm far from being the only one with a wildly idiosyncratic way of using a keyboard. It's true to say in my experience, however, that the people who seem to suffer the most are those who do everything by the book. There can be only one reason for this: we eccentrics are pleasing ourselves while the unfortunate majority have no choice but to obey the rules.

There's a quaint old Chinese proverb which has it that whatever may appear on the death certificate, the real cause of a person's demise is nearly always suppressed rage; I am now convinced that the same thing must apply to RSI.

I'm sure that if I had to bash out the drivel which is inflicted on the average copy typist, I'd fly apart at the seams as quickly as anybody else. The magic ingredient which protects me is that it's my own tosh that I write – not someone else's. ●

NEW FROM SOFTWARE IMPERATIVE:

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● FOREWORD is the new program from Software Imperative, the people who brought you FLIPPER. It's a tool for writers: not just authors (though they'll certainly want a copy) but letter writers, report writers, sermon writers – in fact, anyone who works with words.

FOREWORD bridges the gap between ideas and finished pieces of text. It helps you put your thoughts into words, without worrying where those words will fit on the page or what typeface they'll be in.

"BUT I'VE ALREADY GOT A WORD PROCESSOR."

FOREWORD isn't a word processor, nor is it intended to replace one. Word processors are tools for presenting text on paper, and most of them do this very well. FOREWORD is designed for the stage before this, the creative stage of writing where your ideas are still too vague or unstructured for normal word processing. That's why we call it a "word pre-processor".

FOREWORD is specially designed to stop you getting bogged down in detail as your document grows. With a word processor, as soon as your text takes up more than a screenful you start losing that all-important "big picture" – the overview of your work that's the key to good writing. FOREWORD's powerful "Hide" and "Show" functions give you back that overview. Even when you've typed in thousands of words you can still get a clear picture of your piece at the press of a key, collapsing the on-screen document down to its bare bones.

FOREWORD also shuffles ideas around far better than a WP can. The "Move" function lets you pick up an idea and move it wherever you like within the document, regardless of how much text the idea comes with. There's no block-marking involved: whether it's one sentence or a hundred, you can pick an idea up or put it down again with a single keypress.

"SO WHAT HAPPENS WHEN I'VE CREATED MY TEXT?"

Because FOREWORD doesn't deal with typefaces or layouts, you'll need to get your finished text into a word processor or DTP package before you can present it attractively on paper. Normally, transferring data from one program to another is a fiddly, time-consuming business, but FOREWORD makes the task quick and easy.

For one thing, there's no need to quit FOREWORD to use your word processor. FOREWORD is a pop-up program: it can share

memory with Locoscript 2 or CP/M, hiding "in the background" until you summon it. Just hit SHIFT-ALT-EXTRA and in 1 second you'll be looking at the FOREWORD editing screen. Hit SHIFT-ALT-EXTRA again and 1 second later you'll be back in CP/M or Locoscript 2, exactly where you left off.

Also, you don't have to save ASCII files in FOREWORD and import them into your word processor. FOREWORD's "Transfer" function can force your text directly into a word processor document as if you were typing the words yourself. (Of course, if you find Transfer's 150-200 words per minute a little slow, FOREWORD is quite happy to save your text as ASCII:

it supports two different kinds, plus a special format for WordStar and NewWord users.)

SOUNDS COMPLICATED?

Don't worry: FOREWORD has a carefully designed menu system you'll be able to master in minutes. What's more, FOREWORD supports all those special-purpose keys you're used to, like UNIT/PARA, WORD/CHAR and LINE/EOL. CUT and COPY trigger lightning-fast block operations, EXCH/FIND gives you speedy search and replace functions, and PTR summons the Printer menu. (We couldn't find anything for the RELAY key to do: FOREWORD reformats its paragraphs

automatically, as fast as you can alter them.) FOREWORD's even easy to install: it comes on a self-booting disk you can back-up and use immediately. No need to copy files or fiddle with PROFILE.SUBS – just switch the machine on, pop FOREWORD in the drive and it'll load automatically.

VITAL STATISTICS:

FOREWORD has a fast, accurate word-counter, can edit up to eight documents at once, and has no maximum file size. It takes a minimum of 112K of RAM, and a maximum of 2 Mbytes – the most a PCW can be fitted with.

FOREWORD is fully compatible with Locoscript

v2.16 onwards (including LocoSpell, LocoFile etc), and with all legal CP/M programs. To run FOREWORD you'll need a PCW with at least 512K of memory. FOREWORD supports all SCA and Isenstein memory add-ons. For use with FLIPPER 2 PLUS, and with non-legal CP/M programs like Mini Office and Microdesign II, extra memory is essential. (FOREWORD won't work with earlier versions of FLIPPER, but you can upgrade these for free if you order FOREWORD at the same time.)

FOREWORD DOES NOT SUPPORT:

- File passwords and file time/date stamping;
- Foreign-language keyboards;
- Hard drives;
- Printers on external serial/parallel interfaces (though the 9512's built-in parallel port is fine);
- Single-density or single-sided B: drives (though 720K 5 1/4" or 3 1/2" drives are okay).

DON'T FORGET:

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In as little as two seconds FLIPPER 2 PLUS can whisk you from one side to the other, without losing your place. Why reboot every time you need to get between CP/M and Locoscript 2? FLIPPER 2 PLUS can do the job quicker and better. (FLIPPER 2 PLUS requires at least 512K of RAM, and is fully compatible with SCA and Isenstein memory add-ons.)



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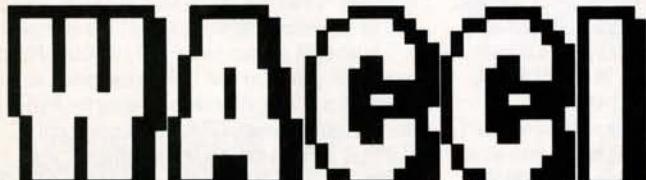
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3 1/2 x 15/16	4.33	7.39
3 1/2 x 1 7/16	5.37	9.52
3 1/2 x 115/16	7.79	12.96
4 x 15/16	5.09	7.78
4 x 17/16	6.09	9.96
4 x 115/16	7.80	13.09

2 ACROSS

2 3/4 x 15/16	3.73	6.39
2 3/4 x 1 7/16	4.51	7.61
3 1/2 x 15/16	4.15	7.13
3 1/2 x 1 7/16	5.37	9.52
3 1/2 x 115/16	7.79	12.96
4 x 15/16	5.19	8.04
4 x 17/16	6.09	9.96
4 x 115/16	7.65	12.78

3 ACROSS

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2 3/4 x 1 7/16	4.39	7.51
3 1/2 x 15/16	3.69	6.36
3 1/2 x 1 7/16	4.87	8.48
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Rich Man, Poor Man

The management of personal finances is now more complex than ever; Tony Hart explains how a low-cost PCW spreadsheet package like Mini Office can make asset versus liability management easier for everyone

Do you know whether you would be in credit or debit if all your "markers" were called in? Would your wallet be fat enough to settle your liabilities? If we were to quickly estimate our own solvency, we could all probably guess what our bank balance would be at the end of the month. Or even say what we hold in our building society. But could we also say what our credit card bill would be at the end of the month or how much is outstanding in

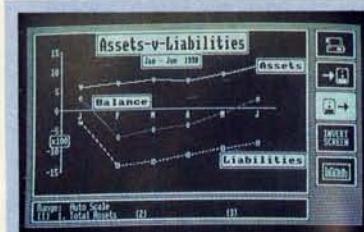
the way of mail-order catalogue charges? What would we have left – if anything – if all these accounts and other debts and loans were called in and we had to settle?

The spending of money has become much more complex over the past ten years. The enormous increase in the financial services market-place during the Eighties, the availability of credit, low-interest mortgages and property booms have been followed by credit

squeezes, high interest rates, higher inflation and zero, even negative, house price inflation.

Once, all anyone had to manage was the simple weekly wage packet; now we have to cope with monthly salaries paid straight into the bank, a couple of credit cards, mail-order catalogues, personal pensions, share options, loans – the list is endless. Expenditure on the basics constitutes only a small part of a family's monthly outgoings.

Let's take the finances of a typical family of the 90s and work out their liquidity situation. How will the spreadsheet help? Firstly, it will help to organise the full list of assets and liabilities. Secondly, it will produce a balance between them. Finally, it can provide a forward planning tool that will help in managing assets and liabilities over the year. We will consider, on the asset side, items that can realise cash quickly – like a bank or building society account. Even the sale of a car. On the down side, we will concentrate on immediate debts like outstanding credit card charges or loans. Fixed, long-term assets and liabilities, like houses and mortgages, will not be included.



Mini Office's line graph showing the balance of assets and liabilities in graphic form

It's no great task to sit down with pencil and paper and work out a balance of accounts. But slightly more sophisticated tools – like your PCW with Mini Office's spreadsheet – do that job more quickly while allowing you to plan and budget for the future. The screenshot above shows, in graphic form, the kind of information that this partnership – you, your PCW and a spreadsheet – can provide. This is a line-graph and the Assets and Liabilities form the top and bottom lines respectively; the resulting Balance is the line



Editing tip

There are two ways of altering the contents of a particular cell. The first is the simple re-entry; position the cursor at the cell, re-enter the data and press [ENTER]. If the text or formula is long, use the Edit cell function by moving the cursor to the relevant cell and pressing [$f7$].

The cell contents will be displayed in the top-left data entry field.

When the changes are complete, press the [ENTER] key.

PREPARING THE SPREADSHEET

A	B	C	D	E	F	G
001						
002						
003						
004						
005	Assets/Liabilities	Jan	Feb	Mar	Apr	May
006						Jun
007						
008	Bank (minimum)	120.00	190.00	300.00	400.00	560.00
009	Building Society	150.00	220.00	410.00	540.00	650.00
010	Shares	350.00	370.00	375.00	390.00	395.00
011	Car	6000.00	5950.00	5900.00	5850.00	5800.00
012						5750.00
013	Total Assets	6620.00	6730.00	6985.00	7180.00	7405.00
014						6480.00
015						
016	Car loan	3000.00	2850.00	2700.00	2550.00	2400.00
017	Credit Card 1	280.00	170.00	120.00	90.00	50.00
018	Credit Card 2	100.00	70.00	87.00	69.00	80.00
019	Mail order	25.00	30.00	36.00	25.00	30.00
020						43.00
021	Total Liabilities	-3405.00	-3120.00	-2943.00	-2734.00	-2560.00
022						-2409.00
023						
024	Balance	3215.00	3610.00	4042.00	4446.00	4845.00
025						4071.00

As we've seen in the opening screenshot, our spreadsheet will take the form of a monthly projection of assets and liabilities over a period of six months, January to June. The columns will indicate the months; the rows will be used to display the changing values of the individual asset or liability.

Above we have the basic spreadsheet layout before any data or calculations have been entered. Apart from the title, this part of the sheet is set up by simply moving the cursor to the relevant cell and entering the text. The first column has been widened (using the column "width" command) to accommodate the length of the text. The title is entered using

the text "string" command.

To enter the title on to the sheet, move the cursor to cell C2, press [ALT]/[S] and type in Assets -v- Liabilities. To enter the Column and Row headers, move the cursor to the relevant cell – cell A2 – and enter Assets/Liabilities. Press [ENTER] to see the text placed in the cell.

Since the default cell width is only six characters, only part of the text will be displayed. To widen the column to accommodate all of the characters which we need to show, press [ALT]/[W]. Change the column width using the horizontal arrow key. The text will start appearing as the column expands. Then press the [RETURN] key.

ENTERING THE DETAILS

A.....	B.....	C.....	D.....	E.....	F.....	G.....
001						
002						
003						
004						
005 Assets/Liabilities	Jan	Feb	Mar	Apr	May	Jun
006						
007						
008 Bank (minimum)	120.00	190.00	300.00	400.00	560.00	120.00
009 Building Society	150.00	220.00	410.00	540.00	650.00	200.00
010 Shares	350.00	370.00	375.00	390.00	395.00	410.00
011 Car	6000.00	5950.00	5900.00	5850.00	5800.00	5750.00
012						
013 Total Assets	6620.00	6730.00	6985.00	7180.00	7405.00	6480.00
014						
015						
016 Car loan	3000.00	2850.00	2700.00	2550.00	2400.00	2250.00
017 Credit Card 1	280.00	170.00	120.00	90.00	50.00	40.00
018 Credit Card 2	100.00	70.00	87.00	69.00	80.00	76.00
019 Mail order	25.00	30.00	36.00	25.00	30.00	43.00
020						
021 Total Liabilities	-3405.00	-3120.00	-2943.00	-2734.00	-2560.00	-2409.00
022						
023						
024 Balance	3215.00	3610.00	4042.00	4446.00	4845.00	4071.00
025						

There are only three calculations made per column – or month. These are Total Assets, Total Liabilities and Balance at the bottom. Once each of the three calculations has been entered into the first column (January), then it is very easily copied to the others through a Relative copy. The formula to calculate Total Assets is as follows:

- 1) Cursor to cell B12 (Total assets for January)
- 2) Press [ALT]/[F] (Command for entering formulae)
- 3) Type in "SUM(B8:B10) (Adding up January's assets)
- 4) Press [ENTER].

To duplicate this calculation throughout the remaining months or columns, do the following:

- 1) Press [COPY]
- 2) Type "S" (Single cell copy)
- 3) Move the cursor to February's column
- 4) Type "R" (Relative copy)

Now move the cursor to column D (March) and type "R"; repeat for columns E, F and G (June).

The calculation for Total Liabilities is carried out in exactly the same way; all you have to do is change the first cell formula to "SUM(B15:B17)".

The Balance, or Assets minus Liabilities, is entered as follows:

- 1) Cursor to cell B12
- 2) Press [ALT]/[F]
- 3) Type "SUM(B12-B19)
- 4) Press [ENTER].

Data entry and rationale

The spreadsheet is now ready for you to enter your data. The completed spreadsheet, shown above, charts the financial progress of a family over a six month period. Data entry is very simple; to enter January's bank balance, for example, all you have to do is cursor to the appropriate cell and type in the value. All other values are entered in this way. The values in the Totals columns don't need to be entered since they will be automatically re-calculated by the spreadsheet each time a new value is entered in

between the two.

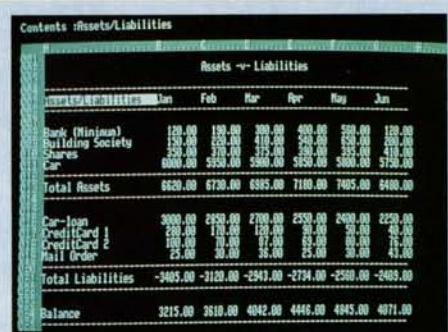
The example that we have used is really very rudimentary but it illustrates the point we are making. There are many variations on this theme. Many more items, either in the form of assets or liabilities, could be included in the sheet. Such additions are accomplished in three steps.

First, create another row by using the [f8] Insert Row command. Then enter the asset or liability item name in column A (January) followed by the values in columns B to G. Finally, change the formula that totals up those items and do a relative copy of it through the other columns.

You could just as easily structure your spreadsheet over 12 months, five years or whatever other time scale suits you. Extending the period is a simple procedure; we need only add columns to the sheet by typing in the column header, the relevant values and then the calculations. ●

MINI OFFICE - THE FACTS

Mini Office Professional Plus costs £49.95 and is available from Database Software (their 'phone number is 0625 878888). The program is made up of five integrated modules: database, word processor, comms, graphics and a spreadsheet whose maximum capacity stretches to 320K.



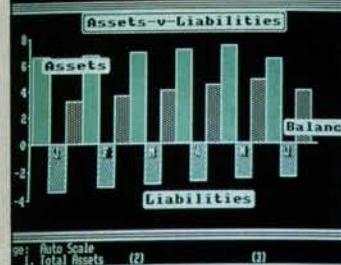
The completed Mini Office spreadsheet as it will look on your PCW screen

the other rows.

Let's take a look at the assets. We can see a low bank balance in January following heavy expenditure at Christmas. The bank balance then builds up until June when a summer holiday virtually wipes it out. A relatively low building society balance in January builds steadily up over the period with a reduction in June to partly fund the holiday. A £500 share investment steadily increases in value due to confidence in the stock market and continued profits from the company. The new car depreciates at roughly £50 per month.

As for the liabilities, the loan for the car is paid off at the rate of £150 per month. The bill for credit card number 1 is used to pay for leisure and holiday expenses; consequently, it starts high due to Christmas/New Year outlay, and is rapidly reduced as the family struggles to get the outstanding amount down to keep interest charges as low as possible. Note that this liability is the amount shown outstanding on the bill for each month. Our family uses credit card number 2 to look after day to day living expenses such as grocery bills or petrol; it shows a fairly steady usage. Commitment to mail order each month follows a similar pattern to credit card number 1.

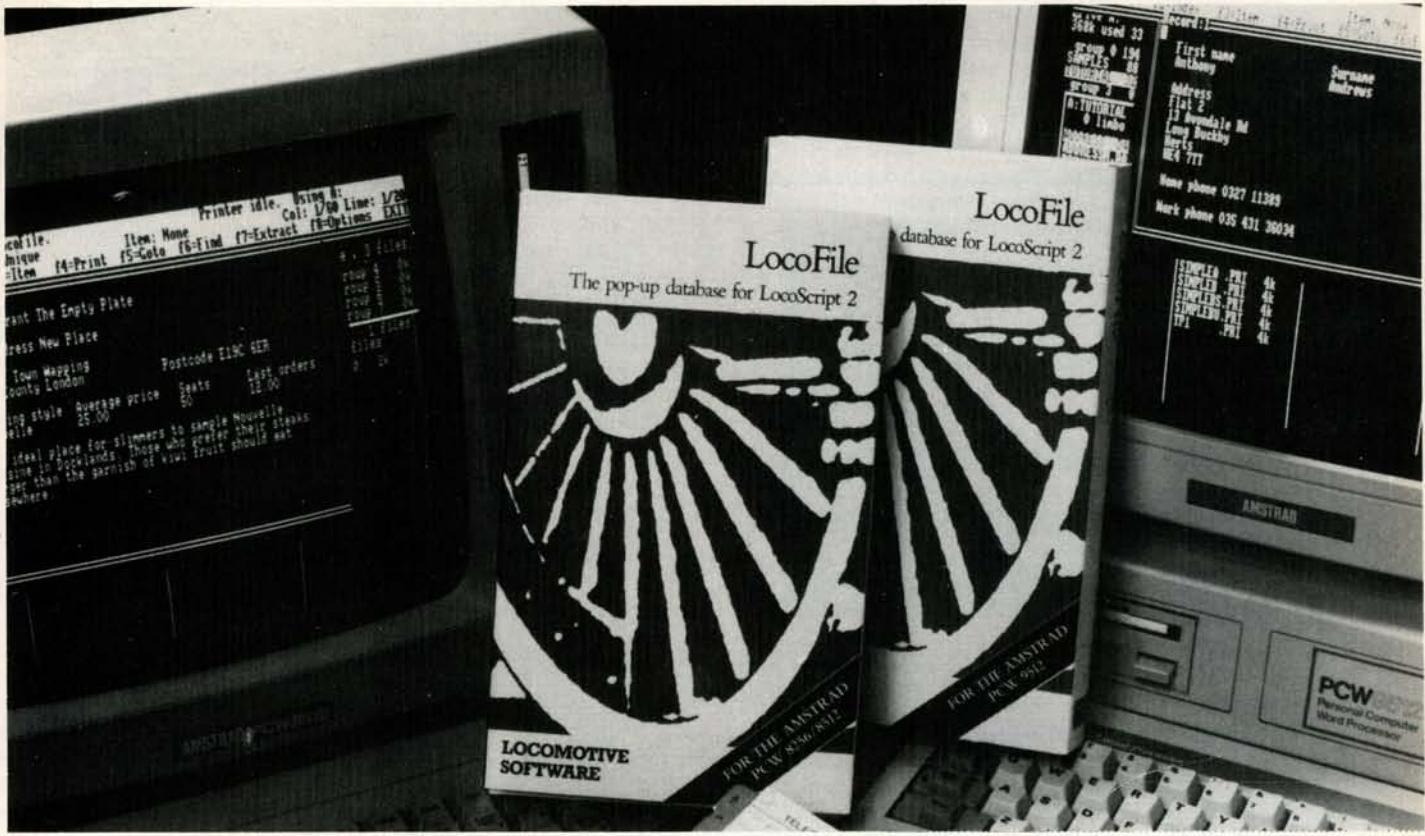
The totals for both assets and liabilities and for the final balance are automatically re-calculated by the spreadsheet each time a new entry is made.



The program's original documentation, which arrived bundled with the old Mini Office Professional, was a rather sketchy affair, only marginally easier to comprehend than a Beginner's Guide to Mahjong written in Serbo-Croatian. The good news is that Mini Office Professional Plus is now sold with the excellent "All in One Business Computing" by John Hughes, a tome written specifically for PCW Mini Office operators. It is published by Sigma Press (0625 531035) and costs £11.95. If you don't have this book and you're still struggling with Mini Office, you will find that it reads like a breath of fresh air.

The line graph shown overleaf was generated using the integrated spreadsheet to graphics capability of Mini Office. This means that a spreadsheet window can be transferred to the graphics module and displayed as one of three different kinds of charts. Above is a bar chart of the same information.

THERE ARE SEVERAL DATABASES FOR THE PCW



But only one for LocoScript 2

LocoFile is the easy-to-use, pop-up database that works within LocoScript 2.

You can use it just like a card index; there's a separate card for each page of information. You can design the layout of the cards to suit your needs and you can change the number and order of the items in your cards at any time.

LocoFile is ideal for storing any type of information from membership records to your personal address book. You can then sort these cards in any order you wish – by name, by town, or by any item on the card.

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And LocoFile can do a great deal more when you use it with LocoMail - the mail merge program. LocoMail lets you create standard letters merged with LocoFile information to produce mailshots, detailed reports and labels.

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LocoFile and the LocoScript family

Name _____

Address _____

Postcode _____

I have a PCW (please tick the correct box)

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Seance and Sensibility

8000 Plus drove to the South coast to talk to psychic Ken Limage, the PCW owner with powers of prediction



Psychic Ken Limage at the keyboard of his PCW getting in touch with "them upstairs." As you can see, not a trace of ectoplasm anywhere.

While the entire country lies paralysed in the grip of World Cup fever, Ken Limage from Seaford in Sussex will be charting the fortunes of the England team, this coming week, with anxiously bated breath. But there's more at stake for Ken than the simple wounded pride of just another English footie fan. For if England lose their impending semi-final match against the West Germans and thus dash their chances of repeating their much-publicised 1966 World Cup

victory, the credibility of Ken Limage, the psychic counsellor with the powers of prediction, will be shattered.

England for the World Cup! What a strange – not to mention, dangerous – declaration from a psychic who has presumably got a lot to gain from appearing – and indeed, sounding – as believable and worthy of confidence as possible. But Ken's track record could be a lot worse.

On the first day of the World Cup, some reporters from an Eastbourne newspaper came to interview him. One of them asked if Argentina would win their opening match against the Cameroon later on that afternoon. The reply came back in the negative. When asked to confirm if this reply was meant to be taken seriously, the response was Yes. "And it turned out to be true," laughed Ken.

Psyched out

Ken Limage is a psychic counsellor. This means that he spends much of his time out and about visiting people who are in need of his peculiar skill. "I know automatically where someone's going, where they've been and what they're going through. I counsel them, help them find themselves," he explained.

Our curiosity levels were soaring; how does someone go about helping somebody else find him- or herself? "By talking, listening – becoming a mirror," revealed Ken. "I absorb their troubles, and mirror back their positive side. I help an individual focus on the various paths that are open to him or her at a particular time. It can often take a lot of time and a lot of effort."

Seven months ago, Ken recruited the aid of an Amstrad PCW 8256. Now, one's first assumption is that he is using a database on it of some kind on which to store the details of his rather unusual "clientele". Then there's the question of invoicing; it's prime PCW territory, after all.

Ken quickly dispensed us of our fond imaginings: "Most of the people I help can't afford professional counselling rates; I do it for nothing. No, I've never enjoyed producing tarot readings for the people. You see," he whispered conspiratorially, "I'm a Rat Scorpion, and they don't like being out on the 'front line', so to speak."

HACK TO THE FUTURE

Ken maintains that he has no control over what his PCW prints out on a particular individual; the machine, and the program inside it are slaves to a much higher psychic law. The mere act of typing into the program, at the keyboard, the individual's name is enough to ensure that the reading is a personal one.

So how does the program break down, exactly? Ken's reticence on the subject is understandable. "Well, we'd rather keep the mechanics of the program quiet for the time being. After all, we haven't got copywrite for it yet."

The crux of it though is very simple: it consists of a single line into which has been incorporated a random function – Randomise x%. The sheer size of the program ("The program takes up a good 12 pages when printed out", says Ken) is due not to the complexity of the programming, but rather the amount of text that is typed into the file. There are forty-odd paragraphs altogether and each one is allocated a specific number. These are the same paragraphs to which the

program has random recourse when piecing together an individual's reading. He says that he can even produce an accurate reading on someone before he has even met them. Hm.

Explained Ken: "There are, according to tarot, about 22 cards in the Grand Arcana. Each of these cards represents an important event or development in a person's – any person's – life. While a reading is being produced, the program will pluck, at random from the store of paragraphs, one for each of the 11 sections. All you have to do is enter, first, your name and, secondly, a random seed number of some description. The reading is produced in seconds. I have absolutely no jurisdiction whatsoever over what the machine produces. Each reading is guaranteed to be different from any others that have gone before it. One of my friends insists that it's a load of old rubbish; but he also says that it's one of the most fascinating games he's ever seen. Whether you think there's anything in this or not is entirely up to you. But I know that it's true."

This is Sharon's READING

SIGNIFIER: 39 Cloudiness is daring the way to your happiness, but it is there for you in the future. Time is all that is needed for you to reach happiness and success. Others don't appreciate you and partnerships are not a great success at present. There could well be a problem with a child or having a child within your environment.

SURROUNDINGS: 32 Be prepared for some type of loss or even a major disaster of some kind. Trouble may come out of the blue meaning your illusions and thoughts may take a fall. Situations and trusts may well be destroyed. Whatever happens in the end you will be proud of what you will achieve and of how you managed to succeed in such overwhelming circumstances.

It's always comforting to learn that a major loss or disaster is looming; but why doesn't Red Deer learn how to spell?

decided to transfer everything I know into the PCW; after all, if psychic powers could go through me and my mind, then they could come through a computer."

Random future

But with the PCW being such a recent acquisition, Ken is most anxious to stress that the involvement of the machine in his psychic activities is still very experimental, particularly as far as the personal readings are concerned. "There are so many variations that I have yet to go into," he says.

What he has been concentrating on in recent months is the reproduction, on the PCW, of the two most problematic tarot readings: the Consequence Spread and the Celtic cross. He is working on the principle that if he can adapt and perfect two of the most difficult tarot processes for use on the computer, the easier readings will fall into place.

The program that Ken is using on his PCW 8256 to produce these personal forecasts is called Psychom and was written, using the PCW's native Mallard BASIC, by fellow psychic and close personal friend, John Compton. Ken describes it as a fairly mammoth project which took John a month of virtually solid working hours to complete.

These forecasts are like tarot readings – but without the cards. Although they do contain references to the past, each one is relevant to a basic six-month period which begins when you detach the paper from the printer and begin to read.

We were surprised to discover that all the computer required from us was, first, a name and, secondly, a random seed number. It seemed a very prosaic start to what had initially promised to be a mystical communion between the mortal and spiritual worlds.

Psycho

After a few seconds of heavily pregnant inactivity on the part of the PCW, punctuated occasionally by nothing more sinister than a whirring and flickering of its disc drive, the printer kicked decisively into action.

The resulting printout divides into eleven sections: the Signifier, Surroundings, Obstacles and so on. Each section consists of one paragraph of about four to ten lines explaining what's going on or what will be going on in that particular aspect of your life.

We were, it has to be confessed, slightly taken aback by the all-encompassing nature of some of the predictions. Take for example the Present coming :

"Change is the key word here, because it is on the way. Good or bad things will be changing around you. Therefore these changes will come out of the blue or be a stroke of luck, an opportunity, even a godsend. These changes will mainly affect the section that this is in so check this because this is where the changes will take place."

Well, nobody could have accused

the spirit behind this particular communication of being either insightful or specific. "Hedging one's bets" was the phrase that sprang most readily to mind at this point. Wasn't it all a bit vague? we asked Ken. His response was assured.

"These readings are pretty complicated. Complication makes for vagueness sometimes. But I can read into them. I want to start simplifying them right down so that, in future, there's no room for any ambiguity." Ken is also very quick to point out that these readings are essentially predictive, and that, in order to appreciate their full veracity, it's important that you re-read them in six months' time. The passage of time often sheds new light over what seems baffling, impossible or ambiguous at the time of the reading. Good luck, England.

Ken's discourse is liberally peppered with references to "them upstairs." When encouraged to expand and go further on this topic, his face assumes the expression of a wearisome teacher trying to explain the rudiments of mathematics to a stunningly backward child. "My spirit guides, of course." Of course.

Psychom, insists Ken, has two sides to it: one side is able to produce tarot readings for people, the other side provides a direct link or means of communication between himself and his contacts or guides "on the other side". "It works on exactly the same principle as the telephone," he explained. He warned that this is the potentially dangerous side of Psychom and only those who know what they're doing will be able to use this "hot line" to the spirit world.

So who are these guides? Usually the most readily available is a dead Red Indian rejoicing in the highly unlikely name of Red Deer. But there are others, too, like Abdul, Fatima, George, Akita and Chou Han Lee. "Each of them has specific character traits. Red Deer doesn't like wasting time, Akita is a healer and Chou Han Lee is more of a mathematician," he informed us in a matter-of-fact kind of way. Fighting back an almost overwhelming urge to pack up our recorders, cameras and flee, we nodded vacantly when Ken volunteered to give us a quick demo.

By means of another Mallard BASIC program which provides a series of Yes or No responses to any question that is entered, Ken – or anyone else for that matter – is able to engage these guide(s) in a conversation during the course of which they are able to find the answers to some of the most pressing issues of our time. The only constraint, as we mentioned before, is that what you enter on the keyboard (it is immediately echoed on the screen and printed out at the printer) has to be a question which elicits either Yes or No as its response. Consequently, he typed in "Are you there Red Deer?" and waited.

After the interminable passage of a couple of seconds, the response comes

back loud and clear: "Yes." We're off.

Is anybody out there?

Ken explained that not everybody is allowed to use the keyboard. It is a privilege and the spirits have first to be asked if the inquirer can type his or her own questions in. It seems that we were to be so endowed with this honour. "Wow, you're lucky," breathed Ken.

It's largely up to you what kind of questions you enter; it can be anything from "Am I going to have beans on toast for dinner this evening?" (Red Deer would no doubt take great exception to having his considerable talents bandied about in such a trivial fashion) to "Will England win the World Cup?"

Of course, the thing that really got us thinking was the fact that the program is unerringly consistent in its responses. The World Cup debacle illustrates this perfectly. When the repeated question "Will Czechoslovakia/West Germany/Holland/United Arab Emirates win the World Cup?" was entered, the program responded repeatedly in the negative until Ken entered the name of the England team. The reply came back a resounding "Yes." Ken numbers among his most illustrious intercourses, conversations with Eric Morecombe and Winston Churchill. He keeps all transcripts of his conversations locked away in a safe somewhere but has committed copies of them to a large red A4 folder. The curious can peruse them at their leisure.

Red Deer is certainly a very talkative chap. Our afternoon with Ken Limage left us with many unanswered questions, not the least of which was: why doesn't someone as all-knowing and all-seeing as this Red Indian obviously learn how to spell properly? ●

Life story

Ken, together with fellow psychic John Compton, is currently working on a complementary program to Psychom which aims to take the tarot readings one step further. Instead of looking to the future in general, you will be able to look more closely at specific areas of your life – like money, career, emotions and so on.

ALTERNATIVE COMPUTING

Ken Limage first discovered that he had a psychic gift some seven or eight years ago. Since then, he has given up a successful career as an environmental consultant to pursue exclusively his relatively off-the-wall profession. When asked to name some of the more bizarre occurrences to which he has been privy, he replied "Nothing seems that strange anymore." More recently, however, he predicted the winners of this year's Derby and Grand National and the Iranian earthquake. That notwithstanding, he is reluctant to use his psychic powers for the purposes of material gain. "No, I never feel tempted to do that," he commented. "Money is unimportant. This gift of mine has cost me my career and my house. No, it's enough in life to have the basics."

Ken originally bought his PCW to help him manage what he calls "fixed data", more specifically, the storage and ready retrieval of details pertaining to the Chinese birth signs. This he does with LocoScript. Nowadays, his PCW, like Ken himself, is concerned almost exclusively with psychic counselling.

Ken is also looking for a business manager with a view to commercialising Psychom – "Not the direct link", he stresses, "that's far too heavy and, in the wrong hands, can be utterly disastrous. No, just the tarot readings." He envisages the day when PCW owners will have Psychom sitting in their disc boxes alongside LocoScript and SuperCalc II.

Quickies

ARMORIAL

£18.50 • Peter Matravers • 0395 271872

Armorial is a set of clip art files to be used with Creative Technology's Micro Design II DTP package. Unlike most of the other support discs of clip art which come with pictures of fluffy animals or scanned images, Armorial has a very specific purpose. Its aim is to allow you to create - wait for it - coats of arms.

What you get for your money is an A: drive disc containing the clip art and, it must be said, a rather flimsy manual. The files themselves comprise the various elements which a herald might require to make up an 'accomplishment' (coat of arms).

These include the basic shield shape, the scroll pattern which goes beneath the shield and which holds the motto, the 'helm' which is the complex upper section to the shield and also a set of 'charges' (the small insignia which go onto the shield face). Once you have made a copy of the disc and have put the master safely away, it's time to boot-up Micro Design II and get on with creating your arms.

The accompanying manual is, unfortunately, just too flimsy. Unless you have some knowledge of heraldry, you will need to go out and buy yourself some information on the subject. This obviously bumps the price of the package up somewhat. The inclusion of a glossary would certainly have alleviated this problem and Peter Matravers has told us that he will be prepared to work on one if the disc takes off.

The second problem is less obvious but more frustrating: there are simply not enough symbols or insignia to make the disc truly worthwhile. We imagine that Armorial is targeted at family historians or students of history who might

ARMORIAL

Pluses
▲ Well drawn

Minuses
▼ Weak manual
▼ Too few symbols

Ease of use:	4/5
Documentation:	2/5
Range of features:	2/5
Performance:	2/5
8000 Plus value verdict	10/20

want to liven up family trees or papers.

Because coats of arms only relate to individuals (not families as it is sometimes thought) every time a new ancestor crops up you will need to create their crest. There are not enough images to do this. It is unlikely that you will stumble upon a family line which only ever used martlets, grenades and mauches to garnish their shields. Even the family Smith in its many guises makes use of rabbits, peacocks and the occasional porcupine, none of which are featured on the disc. Such heraldic creatures as leopards, goats, centaurs and griffins are also conspicuous by their absence. Mr Matravers might have done better to hold off on the launch and bring out a four disc set containing a wider variety of clip-art. What you do get, though, is of excellent quality. The manual, while not explaining terminology, does take you through the process of putting together a crest. It explains this in terms of keyboard and mouse - a nice touch - and everything seems to work well. Sadly, however, you do come away thinking, "Great idea - but not quite there yet." ●



Micro Design and Armorial collaborate to produce a professional-looking crest

PATTERN PUZZLES

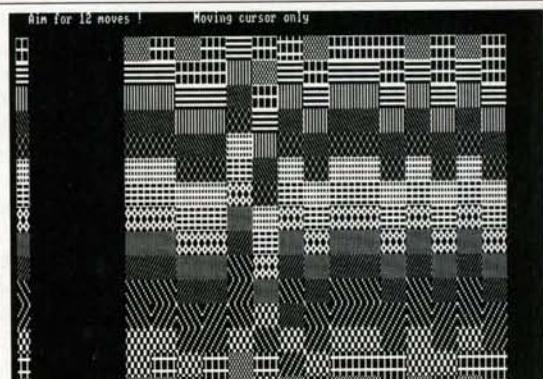
£17.25 • HTB Computers Ltd • 07945 16279

If you enjoy being frustrated, then Pattern Puzzles is the disc for you. This small, seemingly innocent looking A: drive disc holds several puzzles which would try the patience of a saint let alone a normal PCW owner.

Based loosely on the manipulation toy which always seems to appear in Christmas crackers and which entails moving tiles around on a small board to make up a picture or the alphabet, Puzzle Patterns goes one step further. In the old game you were presented with a number of small tiles and one gap. You had to re-order a random combination of tiles using the gap as the pivotal point. This PCW version does not use gaps; instead it 'wraps' the cross-hatched and patterned squares on a grid.

The manual is none too clear on the object of any of the many combinations of games which the disc provides. There are several games to play, from the basic Patterns, which looks like a simple case of returning a confusion of coloured squares to their original form but grows into a mind-searingly difficult challenge, to two variations on a theme called Boggler and Snakes. Finally, there's Megamind.

Boggler sees the squares disappear with 'loops' taking their place. This one really is for the masochist with a high pain threshold. The loops have to be re-organised from a straightforward layout which the computer randomly disrupts. Unlike the previous games where you were allowed to rotate and wrap the loops, Snakes sees them wrapping to the end of the line and then moving up a row. You can imagine how frustrating that can be. Megamind is a mixture of all three of these variations. You get the basic loops and squares with the cross-hatching going wild, but added to this is the



HTB mind-benders puzzle your brain and provide you with a few moments' relief from a heavy workload

fact that there are twelve methods of movement; right, left, up and down, block movement clockwise and anti-clockwise, overall rotation clockwise and anti-clockwise and snake-like sideways motions.

Each of the games has to be loaded separately from the command line. The only way to quit is to press [EXIT] which does not take you back to a menu but merely to the A> prompt. The program's restart provides you with the possibility of cheating - that is to have a list of the moves required down the right hand side of the screen next to the 'board'.

Play combinations are varied; you can play against a 'required' number of moves or compete against a partner to solve a puzzle in fewer moves.

All in all, Pattern Puzzles will appeal to those among our readers who enjoy brief breaks from the workload but also like to feel that they are using their brains as well. ●

PATTERN PUZZLES

Pluses
▲ Lots of possible puzzles
▲ Brain teasing

Minuses
▼ Manual unclear

Ease of use:	3/5
Documentation:	2/5
Range of features:	4/5
Addictiveness:	4/5
8000 Plus value verdict	13/20

Did you know that LocoScript 2 is not only faster and easier to use, but also...

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Starry, Starry Might

With one eye on the planets and another on the cards, Alec Rae looks at the PCW's powers of prediction

STARTER PACK

£12.50 • Astrocute • 0442 51809

It is quite difficult to decide what kind of 'starter' is being referred to in the title of Astrocute's Starter. Certainly this was the program that started the whole thing off for Astrocute (and astrological software) in the early days of personal computers. And it has survived, virtually unchanged, to this day.

NATAL CHART FOR SMALL PERSON											
GRT 9 10 DATE 2 6 1984 LAT 55 ° n LONG 4 ° w											
EDUAL ASPECTS											
SUM	GEM	11	30	5	SUM	squ	SAT	7	SUM	squ	URANUS
MOM	NOV	24	18	1	MOM	squ	MAR	5	MOM	cjn	JUP
MER	TAU	18	15	4	MER	tri	JUP	7	MER	cjn	SAT
VEN	CN	5	35	5	VEN	sxt	JUP	5	VEN	sxt	URANUS
MAR	TA	18	50	4	MAR	cjn	JUP	7	MAR	opp	NEPTUNE
JUP	TA	11	52	4	JUP	tri	URANUS	6	JUP	tri	SAT
SAT	TA	4	59	7	SAT	opp	JUP	4	SAT	opp	URANUS
URANUS	TA	6	49	7	URANUS	cjn	PLUTO	6	URANUS	sxt	PLUTO
NEPTUNE	SC	15	47	10	NEPTUNE	tri	PLUTO	7	NEPTUNE	opp	PLUTO
PLUTO	TA	11	43	8	PLUTO	cjn	PLUTO	6	PLUTO	sxt	PLUTO
		58	10	36							

Even though Starter is far more understandable it is still somewhat obscure for the beginner

What it does, it does with simplicity and ease. There are certainly none of the frills that you would associate with modern packages. But whether this is the program you should buy if you wanted to start a study of astrology is a different question.

The main feature of Starter is the ability to plot the position of Sun, Moon and planets at the moment of a person's birth - the natal chart.

From this chart the astrologer reckons to know your personality and to predict how the current configuration of planets will affect you. For instance, it works out the Ascendant (the sign of the zodiac coming over the horizon that moment) and the Mid-Heaven (the sign directly overhead) of all the planets and then goes on to produce a list of what are known as aspects - the relationship of the planets to each other.

To the trined eye

For instance if the Sun was at 60 degrees (a trine) to your Ascendant, that would be good. If they are 90 degrees to each other (a square) that's bad.

There are no graphics and virtually no text with Starter. There is no "Welcome to the wonderful world of Astrocute." Instead, the program rather tersely demands details from a corner of a virtually empty, black screen - name?,

time of birth?, date of birth?, latitude and longitude of your place of birth?

These are all details that are needed for a proper reading but there are none of the useful utilities of the more sophisticated programs. You have to go and look in an atlas for the longitude and latitude of your birthplace. Other programs keep a file of the exact location of major towns throughout the world to produce at the right moment. It should not be too difficult to program it to work out whether the birth time is affected by British Summer Time, but it doesn't.

However it has to be remembered that it only costs £12 and anything that works has to be regarded as a bargain at that price. Whether you would be prepared to pay more for more frills is a different matter.

Once these details have been entered, the machine thinks for a moment and then produces a table of what must be, to the 'starter' pretty meaningless figures.

The ephemeral ephemeris

To the trained astrologer (especially to the astrologer of the mid-80's when this first appeared) this is like manna from heaven. At last the expert can get on with the work of interpretation without the brain-crunching arithmetic and consulting of ephemerides (incredibly boring little books with lists of the positions of every planet for every day in a specific year) before he can even start the interesting bit.

But for a beginner there is virtually no help in tackling the equally daunting task of working out what SUN GEM 10 6 12 means.

The other part of the program is seemingly an effort to equip the beginner to face the labours of interpretation. One obvious way of starting is to discover key words associated with the individual planets and signs of the zodiac and then tie them together.

So, for example, if you discover that Uranus is situated in the sign Gemini, you remember that a key word for Uranus is deviation and a key word for Gemini is quick learning. Ergo you can say "This person is a quick learner when it comes to deviations."

Memory upgrade

Sadly this is only explained in a rather

sketchy fashion in the manual and isn't even mentioned in the program itself. Instead you are faced with a rather obscure game of matching up key words with lists of planets or signs. For instance, you may have a list of the 12 signs of the zodiac and have to decide which one was associated with the word 'cunning'. Yes, that's right. It's Gemini. The manual insists you should learn these all by heart before you even think of starting interpretation.

While this is all very good for producing moral fibre, you can't help feeling that it might have been better to have used the PCW's ability to remember details to produce simple text files which could be used as memory aids at the same time as they form an interpretation.

The manual does cloud the issue slightly by referring to sections of the program that were not included in the package we saw. For instance, it mentions tutor programs on houses and aspects, areas of astrology that you really need to grasp for even the most basic reading.

A brief mention of the fact that this is not included might save a few headaches. And a few pointers to what purpose houses and aspects served (for those who don't have those sections) would have been helpful.

Another little problem is that Starter is written in BASIC and the program is not particularly robust. Pressing STOP for instance (a rather normal reaction when you've made a mistake and want to start again) takes you out of the program still leaving you in BASIC. That should fool a few PCW starters for a few hours (The

answer is type in CONT and carry on or type SYSTEM to exit to CP/M).

However, at the end of the day what we have to remember is that the program costs very little and those people who want the donkey work taken out of astrology will consider it a bargain.

Starter Pack

Pluses

- ▲ A useful tool for the Astrologer
- ▲ A real bargain

Minuses

- ▼ Not much help for the beginner
- ▼ The tutorial section seems a waste of time

Ease of use	2/5
Documentation	2/5
Features	3/5
Performance	4/5
8000 Plus value verdict	11/20

Computer science must rank as the magic of the 20th Century. We press a key and our PCW spews out cash-flow projections with an ease that is almost supernatural. So it isn't totally illogical that people should want to use the power of the computer to help out with the more unconventional side of forecasting. Most forms of augury need quite complex computations and a remarkable memory to remember what those com-

putations mean – tasks that a computer can perform quickly and accurately.

On the other hand, most fortune tellers do claim a certain skill in interpretation and, at the most, direct inspiration from powers above. Can the predictive software match the powers of the average Gypsy Bruce Lee?

Gradually the realisation dawned that by using a few clever graphics and some carefully worded text files, a program could be created that could pro-

duce the equivalent of a fortune teller's reading. An amateur could sit down in front of the green screen and give the impression of being able to make predictions or divine a person's character. Once the first predictive program hit the market, the race was on to find more and more obscure forms of divination to computerise. This month compares some traditional astrological packages with some new interpretation based efforts at tarot reading and numerology.

A2

£42 • Astrocalc • 0442 51809

If Starter really is aimed at beginners, it is certainly true that the snappily entitled A2 program is not. It has all the professionalism and complication that Starter lacks. But it certainly isn't the sort of thing you would buy out of a vague interest in astrology.

Again it is a valuable tool to the working astrologer. Essentially it is doing the same job as Starter – producing natal charts – but there is a world of difference in the approach.

Astrology is a science on its own and takes many years of study. But you would need a few years' study just to get through the configuration program on A2. Printer settings and disc drive setup are only the start of your worries.

You have a choice of settings on nine different subjects, including progressions, harmonics, synastry and midpoints. Setting up for the natal chart gives a dozen options (including whether you want the tropical, sidereal or draconic versions), just to give you some idea of the program's complexity.

Something to suit everyone

It is almost certain that no matter what method of astrology you prefer there will be a set-up in A2 to suit. But be warned. There is virtually no on-screen help in making your choices; unless you are an expert, expect a long hard struggle just getting the program configured.

The main program does have the advantage of graphics – and good, quick graphics at that. It can produce a professional-looking natal chart on screen in mere minutes.

Pictured in the accompanying screenshot is the natal chart showing the 12 signs of the zodiac and the position of all the planets, ascents, mid-heavens, nodes and anything else you can think of. In many ways it is a pity this function is not available in the Starter program. It does brighten up the use of the program no end and is far more likely to catch the imagination of a novice than a list of numbers.

The displays also include many details that would be useful to beginners. Dividing the planets up between cardinal, mixed and mutable houses or into earth, fire, air and water is not a major problem from a programming point of view and is relatively easy for

the novice to grasp.

A perfectly oval circle

The speed of the graphic build-up is impressive and, more importantly, you can just as quickly create another chart which appears distorted on screen but which prints out as a perfect circle on paper. And it prints out landscape (sideways) to give more room on the page.

It might be argued that Astrocalc have gone over the top with graphics. All the planets and signs of the zodiac are represented with well-drawn symbols and even the aspects are provided in symbolic form.

This obviously gives a far more compact presentation but it does mean that you have to know all these symbols before you can even begin to understand what is going on. Most people recognise the crescent for the moon or the little arrow head for Mars; just how many people are well acquainted with the sign for Uranus is, on the other hand, a completely different matter.

The aspects can be represented in a standard chart or in one of those charts produced by the AA to show the mileage between towns – a simple but effective method of allowing the astrologer to fully explore all the possibilities of a chart.

In fact you are spoilt for choice in the different ways of calculating and presenting the small amount of information needed. Again, all you are asked for is the subject's name, the date and time of birth and the longitude and latitude of the place of birth (you can add Autogaz – a list of the most popular locations to be born in.)

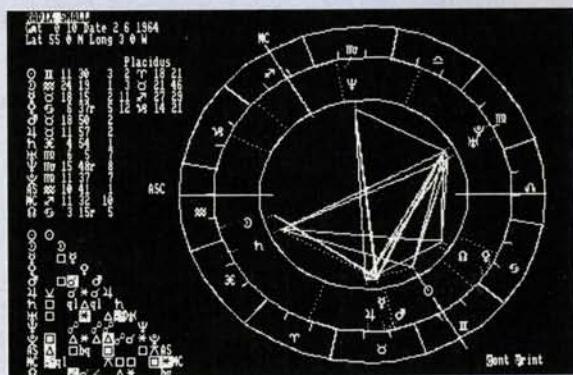
Keep on predictin'

As A2 is very much aimed at the professional astrologer, it naturally has a batch mode which allows you to throughput as many charts as you like – or your printer ribbon will allow.

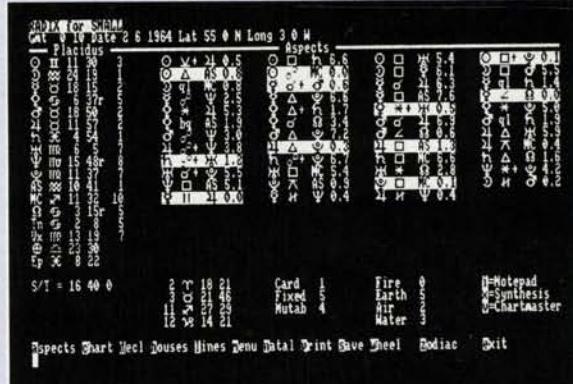
A2 does have a predictive element to it, allowing you to work out transits (comparing the day to day movements of the heavens with a birth chart) and 'day for a year' or secondary progressions (based on the belief that a day of celestial movement is equal to a year of your life).

Again this isn't anything like the text-file based predictions of some programs, where you feed in the details and it churns out pages of print. This

works out the computations needed to compare charts and gives you the information (in symbolic form, of course) to create your own predictions.



While the use of symbols in A2 gives a very compact presentation of information, it is perhaps a little over the top.



Natal charts can be produced either to look right on screen or to look right when printed out.

Again, there is a tutorial section, this time on harmonics. Harmonics are a very complex method of finding significance in the angles between a fixed point on the circle and the various bodies in the chart.

Although it appears to be a subject that seems impossible to commit to memory, A2 does include another of its favourite memory test games. However, this time the section does provide a useful method of checking on the meaning of harmonics which could prove invaluable.

A2

- Pluses
 - ▲ Everything for the working Astrologer
 - ▲ Good graphics

- Minuses
 - ▼ Inaccessible to all but an expert

Ease of use	2/5
Documentation	2/5
Features	5/5
Performance	4/5
8000 Plus value verdict	13/20



Witch job?

A recent survey of the occupations of people involved in witchcraft in America showed that the most popular job was connected with computer science or information technology. Must be something in it.



NUMEROLOGY

£36 • Astrocalc • 0442 51809

If there's any of the occult sciences which lend themselves to computerisation, it has to be numerology. Although it can be used as a form of prediction, it is mainly a method of discovering personality traits by manipulating the numbers most closely associated with a particular individual.

The theory goes that numbers affect our lives in many and mysterious ways. This means that the numbers which constitute your date of birth, the street number of your house and even your telephone number all exert some influence on your personality. Although, having said that, it seems a tad unreasonable to suppose that just because you

Numerology is the very ancient, scientific study of the connection between numbers and events in our everyday world. It was practised successively in the Vedic tradition of ancient India, by the ancient Chaldeans and Greeks, and more recently by Western numerologists. Numerologists can make a numerical analysis of a person's name and birth date, and can then describe some of his or her important personality traits, and point out his or special potential for achievement.

There are two main schools of numerology in the West now. One of these comes from the ancient Chaldeans, and is connected with the Kabala and the Tarot. This school believes that each name contains a good deal of information about a person's personality and character. The other school was apparently started by the Greek scholar and mystic Pythagoras. Rather than describing complete personality types, it considers different dimensions of personality and personal development, and it gives us information about a person's potential and inner motivation. The two systems complement each other, and this numeroscope contains information and insight from both of these schools.

This use of this program is very simple. All the information required is the name of the person, the full name at birth up to a maximum of 4 names, or the first and last name if there are more than 4 and the date. Entry can be in upper or lower case (the program converts to upper case anyway).

Dates should be entered in the usual Astrocalc way:

e.g. 2,10,51 for Oct 2nd 1941 or 5,5,39 for 5th May 1939.

Press c to continue

Astrocalc's Numerology program is certainly very easy to use and supplies you, when you press [I]nformation, with some useful background reading

PERSONAL NUMEROLOGY
Copyright (c) 1990 David R. Webb
Version 1.0 - Distributed by Astrocalc

Usual Name
Enter the Name you are usually known by: ? Small person? (y/n) Y
Birth Date
Enter as d,m,y (eg Feb 2nd 1942 as 2,2,42) ? 2,6,64
Is the birth date 2 June 1964? (y/n)? Y
Full Name at Birth
Enter up to 4 names (first and last if >4) ? Small but beaut person
SMALL BUT BEAUT PERSON (y/n)?
Are the vowels in : 1 SMALL 2 BUT 3 BEAUT
A U EAU EO
Enter y or the number of the word where the vowels are wrong ■

Simply type in the name you're known by, the name you were given at birth and your date of birth and the program will begin 'calculating' your vowels

up roots to go and live in number 19 that you will automatically metamorphise into a ravening psychopath who is likely to lose all control on viewing the colour red. Presumably if you keep the same telephone number, you will be all right. Anyway, back to the subject in hand.

Numerology, therefore, involves simple tasks like adding up the digits of birth dates to get a single prime number – a number which is regarded by the practitioners of such a science as highly significant and which determines a particular set of attributes and/or failings for you.

This is taken even further by endowing each letter of the alphabet with its own specific numerical value. In this way a name can be given a numerical value by adding the value of each letter.

By looking at these numbers, the

numerologist reckons to be able to become acquainted with the real inner you. So with the minimum of information and a few simple sums, Astrocalc's Numerology program should be able to tell you the secrets about yourself which you never even knew existed.

Name, rank and number

It is true to say that using the program could hardly be easier. You just type in the name you are normally known by, your date of birth and the name you were given at birth, complete with embarrassing middle names (now is no time to be shy about them).

From these few details, the program does a series of complicated computations and churns out between eight and nine pages of single spaced type that should, in theory, explore every corner of your inner psyche.

Admittedly a large part of this text is a standard explanation of what numerology is about and what it is trying to achieve, interspersed with surprisingly short passages of interpretation of particular numbers.

However, as numerology is not as popular a form of occult science as, say, astrology, this detailed background is probably needed and it certainly gives you the impression of getting your money's worth.

And talking about money, Numerology, like many of the Astrocalc programs, is geared up for the professional or semi-professional user. Names can be put through in batches and then printed out while you go off to gaze meaningfully into your crystal ball.

We did see an early version that may still have a few correctable bugs in it, but on the copy we tested there was a tendency to produce an unexpected page throw, which put all the subsequent pages out of sync with the continuous paper. So it is maybe an idea not to go too far, if you're printing out a large batch.

You can also customise the print-out to include your name although Astrocalc do get top billing. There is also the opportunity of printing out an order form which offers all these pages of information for a mere £5; sadly, this is set up for the cheque to send off to Astrocalc.

You say Kaballa...

As with all of these packages whether you feel it works or not must depend on your own, subjective judgement. There is no obvious opportunity to customise the text so you are stuck with what you've got.

It does seem to be written from a position of some knowledge, using standard methods of Numerology, although with a program that puts such importance on the spelling of words, Kaballa should really be spelt Qabalah to be absolutely accurate.

It also tends to cover its tracks a little. For instance, it tells you the number four can mean you are very

systematic and orderly or disorganised and disorderly. Seems a reasonably safe bet.

Again, as this was an early version there may still be some wrinkles to iron out, but occasionally our version did tend to produce different numbers based on the same dates and names. As Numerology is one area where there should be no element of chance, this is presumably a bug and a rather inconvenient one at that if you want to take the program seriously.

One limiting factor is that you only have the choice of printing out the full eight pages of text. This virtually kills the ability to try out 'what-if' possibilities with names.

Only the names are changed

It is reckoned that by changing your name you could change your personality – a theory borne out by the evidence of thousands of husbands who discover that their wives change their personalities as soon as they assume their married name.

Numerologists will suggest it is possible to find yourself a name that is better suited to your other numbers or one that will give you a particular ability – an area where the PCW could prove invaluable.

Astrocalc are planning to add a section to the current Numerology program by the autumn of this year which is billed as a program to investigate names and numbers. If this did give the option to try 'what if' options, (Alex or Alec or Alexander, for instance) it could become an essential tool to the serious exponent of the art.

Again a forecasting section is promised – presumably working out good days when the numbers are in harmony with your numbers or vice versa. The mathematics are not too difficult to work out with a pencil and paper, but they are obviously a lot easier and less time consuming on a PCW.

Another possible area of improvement would be more explanation of precisely how the numbers are produced. They seem to appear as if by magic from the inner reaches of your machine. Showing the arithmetic behind them would be both interesting and informative.

There is,

apparently, a branch of Numerology that studies the incidence of a specific number

– how many times the number three appears in a name or birth date, for instance. A little more detail on how the numbers are achieved would allow this to be taken into account.

Numerology

Pluses

- ▲ Couldn't be simpler to use
- ▲ Plenty to read

Minuses

- ▼ No chance to adapt the text
- ▼ Not enough explanation of how the numbers are achieved

Ease of use	5/5
Documentation	3/5
Features	2/5
Performance	3/5

8000 Plus
value verdict 13/20

THE TAROT PROGRAM

£24.99 • KF Heywood •

0269 826664

The first thing that must be said about a tarot package is that it is difficult to recreate the atmosphere of a tarot reading on a green screen.

For a start, most tarot packs are brightly coloured, ornately decorated and packed with the most obscure detail. There are hours of harmless fun in studying each card and trying desperately to work out what on earth it is supposed to mean.

In comparison, the graphics in (K) Software's imaginatively entitled The Tarot Program do seem a little mundane. The most exciting image on screen is of the Celtic cross lay-out (the most common way of laying out the cards for a Tarot reading) with the most unconvincingly shaped cards. Instead of an attractive illustration, each card has its title written on it.

But if we are to compare this program with the others in terms of its ability to take the hard work out of prediction, this certainly does work.

Normally when you learn cartomancy (that's card reading to the uninitiated) you have to learn 156 different interpretations – 78 for the card upright and 78 for the card reversed. You really have to try to learn them off by heart. It looks so amateurish sneaking a look at Bluff Your Way in Fortune Telling every five minutes.

In comparison with the Tarot Program, you can be producing very detailed readings – five pages' worth – with a full interpretation of the meaning in the context of its position.

A long handled shuffle

The program does exactly what you would expect of it. It can produce a reading with cards chosen by chance. The cards are 'shuffled' – a process that seems to take an inordinately long time. The manual (a rather home-made looking effort) even warns that this could take up to 60 seconds.

You are then invited to chose 10 numbers at random. Only later do you discover what cards you have picked – and thus your future.

There are no exhortations to "ponder deeply on the matter in hand" or to press the keys with your left hand. The manual is very matter of fact about the process, a style perhaps more suited to instructions for an accounts package; but perhaps they are the more understandable for that.

By far the most important feature of the program is that you can actually set up a reading by placing the cards in the right places. Technically this could have been made easier. You are presented with a list of all 78 cards and you cursor down by pressing the space bar. If you miss the card you want you have to start again – a minor point, but quite time-consuming.

However it does mean that you can combine all the fun and romance of a

proper tarot reading, complete with head-scarf and gold earrings and then get the PCW to do what it is good at – remembering the meaning of each card.

Two heads are better than one

It is difficult to give a subjective judgement on the text that is produced to go along with each card. The method used does not take into account reversals (it is assumed that all cards are upright, giving only a possible 78 different meanings.)

This is different from most tarot reading techniques which make great play of the cards being two headed. This is normally interpreted by giving upright cards good meanings and reversed cards bad meanings.

By having no reversed cards the Tarot Program seems to fall into the trap of having nothing but good news to disclose. But people don't really consult fortune tellers to hear bad news, so maybe that is not such a bad failing.

Whether you feel that it can accurately foretell the future must be a pretty personal decision, but it certainly seems convincing enough.

The text is written with far more conviction than the manual, almost getting poetic at times. Each interpretation is prefixed with an explanation of where in the lay-out the card is found and what that means. For instance card number eight tells of friends and family – card 10 is the final outcome.

Another sentence tells you whether the card is from the Grand Arcana (an important one), the Minor Arcana (a not so important one) or a Court Card, which could be describing a person.

While this detail is invaluable to understanding your reading it might have been better to keep it separate from the real interpretations. It would have been worthwhile to arrange it in such a way that it could more easily be ignored once you have got used to the program.

Changing the future

Interestingly enough you have the opportunity to change this text or the card interpretations themselves in the text editing section of the program. This is stuck rather incongruously in a prompt "Do you want to edit the text files?" at the beginning of the sequence.

The manual comes up with the handy hint "If you are using the program for the first time, I suggest you answer (N) no."

When you do enter the mysterious world of the text editor, things get slightly more difficult. Again you have the cumbersome cursoring process to pick the card you want to change. The screen is split between the text already in the program and space for you to add your own.

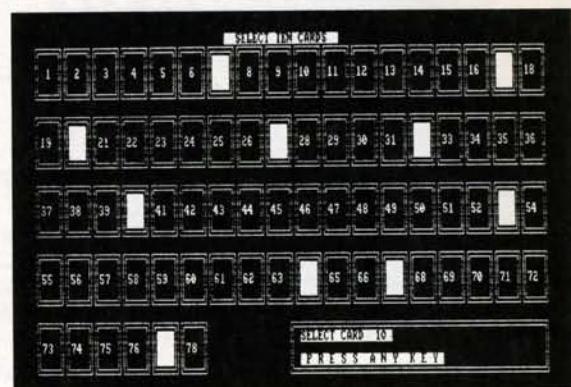
This will probably prove quite difficult, even for an expert tarot reader who, as previously mentioned, has probably trained on the double-headed system. But perhaps the most limiting factor is that you have only one interpretation for each card. Most tarot readers

would give a different meaning to a card depending on its position and even the cards surrounding it.

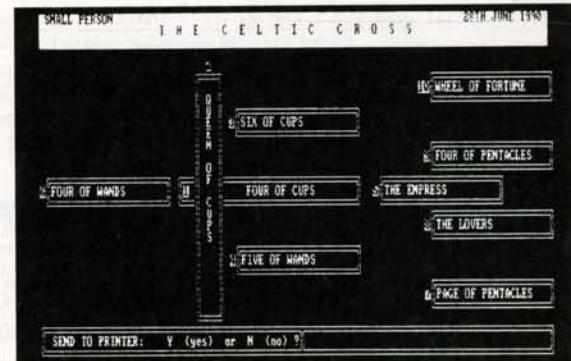
This is the real art of fortune-telling and unfortunately at present seems to be still beyond the power of the micro-chip.

One quirk with the text editor is that it does not seem to want to let you go until you have committed your thoughts to the green screen. You seem to have great difficulty cutting short this experience. However as the amended text file is first saved in M drive before being committed to disc, you are unlikely to do too much damage by accident.

Perhaps the most interesting and definitely the bravest feature of this program is the way that it commits to



After the pack has been shuffled, take your pick of ten cards - any ten - by entering the appropriate numbers.



The typical tarot layout following the selection of the cards. The resulting printout tells you exactly what crucial placement means what.

postponing its opinions about the future.

Five pages of prediction are printed out with the name of the querent and the date. This means that all readings can be

carefully filed away and checked against reality some time in the future.

This is an ability few professional fortune-tellers would be keen on emulating and should give as near to a scientific approach to assessing

whether, or not, the business of prediction by tarot is accurate. Ah, brave, new world. ●

Tarot

Pluses

- ▲ You can provide your own layouts
- ▲ You can adapt the text
- ▲ Gives a detailed print-out of prediction

Minuses

- ▼ It uses an unusual one-headed interpretation system

Ease of use	3/5
Documentation	2/5
Features	4/5
Performance	4/5

8000 Plus
value verdict 13/20

Crystal Green Screen

The makers of The Tarot Program proudly quote a couple of professional Clairvoyants, who travel the country making a living out of selling readings from their versions at Psychic Fairs and holiday camps. Certainly a bit bulkier than the old crystal ball.



PCW-ToolKit has long been the leading disc recovery tool available for the PCW. Specially designed, it makes full use of the PCW's screen and keyboard to allow **anyone** to recover damaged discs and lost data easily.

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Book Look

Sophie Lankenau looks at the work of the data plunderers

HUGO CORNWALL'S NEW HACKER'S HANDBOOK (4th edition)

by Steve Gold £9.99 • Century Ltd • 071 973 9670

8000 PLUS VALUE VERDICT = Very good
ISBN 0 7126 3454 1

To publish a fourth edition of any book indicates two things; first, that the subject matter is extremely popular, and second, that it is a topic which needs regular updating. The fourth edition of The Hacker's Handbook has been released in response to both these points, only this time under the editorial guide of Steve Gold. Hugo Cornwall, seemingly exhausted by five years of exposing his hobby to the general public, has hung up his hacking boots for the time being.

The book aims to give a general overview of hacking as a pastime – together with the intrinsic moral and ethical questions of such a pursuit – and a look at the basic equipment needed to embark upon the hobby yourself. It conforms to the 'All you need to know' rather than 'Step by step guide' format. The legislation surrounding hacking is woolly, but lucid enough to indicate that producing a beginners' guide to such a topic would be as unadvisable as publishing 'How to Blow Up the Houses of Parliament in Ten Easy Stages'.

Hacking is described by Hugo Cornwall as "a recreational and educational pastime...it consists of attempting to make unofficial entry into computers and explore what is there." He adds, "Most hackers are not interested in perpetrating massive frauds or instigating a world war." This notion is borne out throughout the book. Although chapters are structured around practical elements such as techniques and target areas, there is nothing so blatant as giving away the necessary passwords and phone numbers to access top secret information.

Coming to get you

The basic skills required of any potential hacker are a knowledge of how information is held on computers and how it can be transferred from one machine to another. In other words, if you have a grasp of communications, or comms as it is better known, you are reasonably equipped to begin.

The ability to write programs in machine code or any high level language is a useful asset, Gold continues, and the relevant hardware is essential. You need a computer, with a serial (RS232c) port and a modem; all familiar terms to the comms expert, and made accessible to the beginner by Gold's clear explanation. The various comms software currently available is outlined; and without further ado, the book moves on to the meat of the matter – targets.

Victims of the hacker's curiosity range from financial institutions such as the Stock Exchange, where in the aftermath of the Big Bang, market dealing is now largely screen-based, to government computers. It is the chapter on targets which uncovers the majority of Gold's fascinating stories about the achievements of hackers to date – and the mixed reactions of the authorities and the media.

There was a case in 1988 where an unemployed man from Surrey used the resources at the University there to go on-line and see what he could find. The man in question had spent five years developing communications skills to the point where he could access almost any on-line service – including NASA and Milnet, the North American military computer network. The US security forces were tipped off and the man was arrested and interrogated by both British and American police. At the time of the incident, the hacker

was extremely alarmed by all the fuss which was being made; for hackers, it seems, it is not the manipulation of the target information which is exciting, it is reaching the information in the first place.

Ground rules

In the same 'thrill of the chase' mode, the section which Gold devotes to hackers' intelligence – that is, how exactly you can access these targets, is none too specific. There is as much protocol observed when logging on to bulletin boards as there is in a game of croquet; you simply don't barge on to the board and ask if there are any good numbers floating around. The general

rule is that a bit of background research provokes the kind of questioning liable to invite a helpful response. As Gold points out, "90% of the information you want is freely available – the difficult part is recognising it and analysing it." In this section, as in several others, modified screen dumps illustrate 'typical' bulletin board conversations.

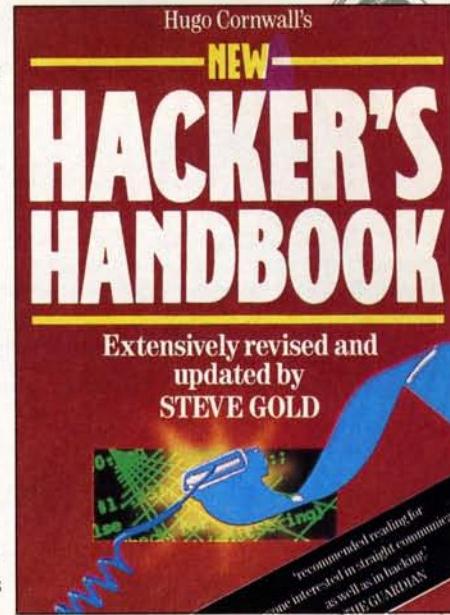
The publicity surrounding hacking oscillates between horror stories and glamour; in America in 1980, two youngsters caused a system crash through hacking which cost \$22,000 to rectify. They were prosecuted, given probation, and then approached with a film offer. A more recent incident reveals the near paranoia which organisations experience about the vulnerability of data. In 1987, a Manchester bank was concerned about the fact that its customers were withdrawing cash from 'hole in the wall' machines, yet never receiving it, and their accounts were still being debited. An examination revealed that a false cardboard back had been fitted to the cash dispenser, which trapped the notes until the thief came along to collect his 'winnings'. The suspected hacking operation turned out to be petty theft.

German legislation introduced in 1986, says Gold, states that hackers in that country can only be prosecuted under certain circumstances. There are three conditions: if computer records are altered in order to gain an unfair advantage for a person or a third party; if information is deleted or manipulated in order to cause harm to a computer or its owners, or if unauthorised access is made to a computer to acquire commercial secrets. Under such criteria, the majority of hackers operate inside the law. Their activities are almost voyeuristic; the 'Look but don't touch' philosophy is only violated in rare instances.

Trick of the night

The book concludes with a troubleshooting section, and there is also a helpful glossary explaining technical jargon.

There is something for everyone in The New Hacker's Handbook; 'practical' sections assume a reasonable amount of foreknowledge, but even for someone who has no intention of taking up hacking, this is a fascinating read. For those of you who thought that hacking was a shady nocturnal pursuit, steeped in intrigue and dishonesty, you will be forced to think again. As Gold says, hacking will never stop. "The golden age of hacking always seems to be yesterday until someone stumbles across a fresh opportunity." The only change will be in the way that hackers behave away from their equipment. "Hackers are realising that the real harm lies in publicising their hobby." Perhaps, then, this fourth edition of The Hacker's Handbook will have to be the last. ●





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Pounds and Pesetas

With the holiday season hard upon us, Roger Evans shows you the quick and painless route to currency conversion using a LocoMail routine

Do you want to know how much you really spent on holiday? Do you frequently need to work out your business expenses after a foreign trip? How about calculating the value of your portfolio on the Tokyo Stock Exchange or the price of computer software in an American magazine? This useful little LocoMail program can do all of this and more in any currency you like.

The Exchange program listed here can come in very handy if you

frequently find yourself bogged down with a calculator and a stack of foreign receipts trying to work out expenses after a business trip. Alternatively, you may simply want to work out how much money you spent on holiday last month. It couldn't be easier to use. All you have to do is type in the routine shown in the box below and see how fast it runs.

Those of you who are PCW9512 owners already have everything you need to quickly type up the program

and start dabbling in dollars or Deutsch marks. You don't even have to leave the comfort of your LocoScript disc. Owners of PCW8256s and 8512s can also use this program provided they have invested in LocoScript 2 and LocoMail. To use LocoMail, simply insert your normal start-of-day LocoScript disc. The first menu should include the options Fill and Merge. If they are not listed, then the LocoMail program needs to be installed. See the LocoMail manual for further details.

How to type in the routine

If you are a regular user of LocoScript, then most of these instructions will sound very familiar to you. The process of setting up a LocoMail program is very similar to typing in a normal LocoScript document. The difference lies in the commands that the programs uses.

Special LocoMail commands are enclosed between (+Mail) and (-Mail) codes. These codes are typed in using the Set Key [+] and Clear Key [-] on either side of the space bar. Simply press [+M] to produce the (+Mail) code and [-M] for (-Mail). You can use a capital or lower case M; it makes no difference. One thing to watch out for, however, is that they always operate in pairs. Every (+Mail) code must have its corresponding (-Mail) even if they are not placed together. Failure to do this provokes the most common LocoMail syntax error message when attempting to put any LocoMail routine into action.

The other codes are the standard LocoScript options for bold, underline and word-underline. They can be keyed in exactly the same way: type [+B] for (+Bold); [-B] for (-Bold); [+UL] for (+UL); [-UL] for (-UL); [+W] for (+Wordul). Once again you can use capital letters or lower case ones to type these keystrokes. Everything else is a matter of simple copy typing.

Establishing a layout

The first step is to create a document by pressing [C]; call the document EXCHANGE. Before you begin keying in the listing, press [F2] to set up the layout. 1) Select Change Layout. 2) Press [F4] and change the Character Pitch to 12. 3) Press [F1] and →

Following a routine

Although relatively new to computers and word processors, Roger Evans is an established full-time author with many published books and articles to his name. These are mainly easy-to-follow instruction books on music, travel, advertising and business writing. Like many people, he bought his PCW 9512 as a word processor and was amazed to find LocoMail included in the package. "LocoMail quickly grabbed my imagination as I could use it along with LocoScript. I began writing my own programs. I now run most of my business - including tax and VAT accounts - using LocoMail."

THE LOCOMAIL ROUTINE

```
(+Mail):EXCHANGE for LocoMail (c)1989 Roger Evans [RETURN]
[RETURN]
;This program can be used to convert any currency into £ - or into any other currency. (If another
currency is required instead of £, replace the £ signs with the name of the other currency.)
[RETURN]
(-Mail)(+Mail)[RETURN]
total=0: yes="Y*": no="No": tab+[TAB]: cr=[RETURN]
" [RETURN]
exchange=[RETURN]
(+Mail)title=?; Title of list? [RETURN]
country=?; Which country? [RETURN]
currency=?; Which foreign currency? [RETURN]
exrate=?#; What exchange rate to the £? [RETURN]
[RETURN]
(-Mail)(+Bold)(+UL)(+Mail)title(-Mail)(-UL)(-Bold)[RETURN]
[RETURN]Country : (+Mail)country(-Mail)[RETURN]
[RETURN]
Exchange rate : (+Mail)currency(-Mail (+Mail)exrate(-Mail) = £1.00 [RETURN]
[RETURN]
(+UL)[TAB] [TAB] [TAB] [RETURN]
(-UL) [RETURN]
Date [TAB] Item [TAB] Cost in [TAB] £ amount [RETURN]
[TAB] [TAB] (+Mail)currency(-Mail) [RETURN]
(+UL) [TAB] [TAB] [TAB] [RETURN]
(-UL) [RETURN]
(+Mail) [RETURN]
loop="(+Mail) [RETURN]
date=?; date? [RETURN]
item=?; item? [RETURN]
cost=?#; cost? [RETURN]
cost=[cost*2]: pounds=[cost/exrate]: pounds=[pounds*2]:total=[total+pounds]
[RETURN]
;print entry [RETURN]
date:tab:item:tab:cost:tab:pounds:cr [RETURN]
;repeat loop? [RETURN]
%"repeat = ?; Any more entries? Type Y or No [RETURN]
#repeat = no :<:test=0:finish=0 [RETURN]
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[RETURN]
(-UL) [RETURN]
(+Wordul)(+Bold)TOTAL: [TAB] [TAB] [TAB]
£(+Mail)total(-Mail)(-Bold)(-UL) [RETURN]
(-Mail)" [RETURN]
```

Convert your currencies

Mail supremacy

For PCW 8000 owners who are thinking of upgrading to LocoMail, the program costs £29.95 and is available from Locomotive Software on 0306 740606. LocoScript 2 costs £24.95.

The whole story

If you would like to read up more about LocoMail and its workings, you can find a full tutorial series from issue July '88 (issue 22) through to December '88 (issue 27).

set the right margin at 86. (The left margin should be at 10 – if not reset it.) 4) Press [F3] to set tabs – a Simple tab at 25 and Right tabs at 66 and 85. 5) Press [F8] and select the Codes option. This allows you to see the codes as you type them in to save confusion.

Now type in the listing, line by line. This is fast and straightforward. Check your listing and make sure you put all of the codes, colons and returns in the right places or the program may not run.

When you have finished, press [F8] to remove the codes and return signs so the screen is clear and tidy. Then press [EXIT] and [ENTER] to Finish edit. Note: this routine includes pound signs as well as hashes. Please make sure these signs all appear correctly (as shown in the routine printed overleaf.)

If you are not sure how to do any of these things, refer to the manual which came with your PCW9512, or the LocoScript 2 or LocoMail manual if you have a PCW8512 or 8256.

Using the routine

Filling is the fun part of LocoMail. You have set up a LocoMail program, now all that remains is to fill in the values.

For LocoMail fans, this listing has a feature which I have not seen in many Fill programs. Type it up and run it and you will find the program is filled line by line, one prompt at a time starting with a blank screen. This gives a cleaner appearance and is easier to read than the more usual Fill programs which are often cluttered with text before and after the part you fill.

To run the program, choose option [F]. You should see all of your listing appear then disappear as it is called up and read by LocoMail. Then a prompt will appear asking you to give a name to your list. Call it what you like –

This program proves that there's more to LocoMail than carrying out mail-merge applications with LocoScript. It can do arithmetic, and solve problems too. Of course you don't have to understand the program in order to use it, but for the curious among you, here is a brief explanation.

The program is in several parts. The messages at the beginning preceded by ';' are reminders – the equivalent of REM messages in BASIC. I often use them to name the program and explain what it does. This is especially helpful where several programs have similar names or perform differently in different versions. They only appear on the screen as you complete the Fill process on the routine; they don't appear in the final printout of the table.

The listing starts by setting 'total' (which represents the total

Holiday Spending Money or whatever else takes your fancy, and then press [ENTER]. You will be prompted for all the subsequent details to be entered. Remember to press [ENTER] after each entry.

For exchange rate ? and cost ? give numbers or numbers with decimal points only. Please do not use £ signs or words to answer these questions or the PCW will beep and ask you again. (You don't need to enter .00 if there are no odd pennies or cents – the program does that automatically.)

At the end of each line you will be asked if you have Any more entries?. You can type Y, Yah, Yup or anything else beginning with "Y" for Yes – you needn't use capital letters. However, as a safety feature, you must type NO or no to answer No. Type anything else and you will be asked again if you have any more entries.

You can correct any incorrect entries before you press [ENTER] using

the [DEL] keys. If you discover you have made a numerical mistake after you have already pressed [ENTER], correct it by entering an identical minus amount, then re-enter the correct amount.

If any LocoMail error messages appear when you fill the program for the first time, you will need to Abandon LocoMail, then check and edit any mistakes in the listing and try again. (Press [F8] and switch on the codes while you edit or you may accidentally delete some LocoMail codes.)

At the end of your list you will be asked if you want to edit it. Select Edit if you need to correct any spelling mistakes. Otherwise select Save or Save and Print and give it a suitable name – SPANISH.HOL, or whatever else takes your fancy.

I often use this program for business expenses, in which case I save the result and paste it into my business accounts. ●

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Holiday Spending Money
Country : Spain

Exchange rate : Pesetas 195 = £1.00

Date	Item	Cost in Pesetas	£ amount
21.8.90	Sombrero	750.00	3.85
	Sun Cream	600.00	3.08
22.8.90	Car Hire	2000.00	10.26
23.8.90	Barbecue Night	3500.00	17.95
24.8.90	Castenets for Cousin Mary	500.00	2.56
25.8.90	Boat Trip	4000.00	20.51
26.8.90	Duty Free at Airport	3600.00	18.46
TOTAL:			£76.67

WHAT DOES IT ALL MEAN?

expense) to zero and defining 'Yes', 'No', 'Tab' and 'cr' (RETURN).

The main program is called 'exchange'. This begins by requesting keyboard input of the basic information used in the calculations. The exchange rate ('exrate') can only be a number, so the # sign is used in this case.

The program then sets up the titles and table layout. The table is filled in by a program string called 'loop'. Loop finds the date and cost of each item, calculates the currency conversion then prints these into the table.

Cost is taken to be a numeric value which is put into pound and pence format by the "|" character.

Another string called 'repeat' is embedded in 'loop'. This issues instructions to repeat 'loop' every time you answer 'Y' to the question 'Any more entries?'.

At this stage in the program,

the decision either to stop or enter another line is taken by using a series of special programming commands. The '#' character in this part of the program can be translated to mean 'if'. Likewise, '<' means 'then', '><' means 'else' and '@' means 'while'.

The program will continue to read in a response until test is zero. This only happens when a correct yes or no response is given. For a 'yes' response, finish is set to 1 and the loop is performed again, reading in another set of values.

When you finally type 'No' to this question, the loop stops and the last part of 'exchange' calculates the total of all of your entries.

You are then asked if you want to Edit the result, Save the result, Save and print it and so on.

Select "edit" if you need to correct any spelling mistakes, otherwise select one of the other options.

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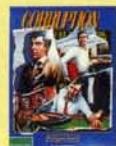
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LISTINGS

Karen Donaghay looks at two short and simple Mallard BASIC listings for dedicated LocoScript users.

For any committed wordsmith, a word count facility is one of the most useful tools of the trade. This is why many PCW users desert the comfort and safety of LocoScript to use an alternative word processor like Protext. One of our readers, Alan Haken, has, however,

submitted a short BASIC listing (Wrdfcount.bas) which allows you to do just that - count the number of words you write in your LocoScript 1 and 2 documents. And in 440 lines, that can't be bad.

The LocoScript repertoire is extended further with Andrew Lyall's

program Footnote.bas. Not surprisingly with a name like that, it allows you to add footnotes to your text.

Both programs are short and simple; you don't have to grapple with miles of complicated code to produce something genuinely useful. And these two programs provide the proof!

WRDCOUNT.BAS by Alan Haken

Manually counting words is no fun at all. Computers are supposed to rescue us from these boring repetitive tasks, and that is exactly what this program does. It can be used with any LocoScript document to tell you how many words the document contains.

To use this program, the document must first be saved in a more standard form, called ASCII (American Standard

Code for Information Interchange). There is an option in LocoScript for translating documents into ASCII called **Create ASCII file**. Select the **Simple text** option. You will need to give the file a different name.

The program works by checking for the breaks between words (known as delimiters). Since a word could be at the end of a line, the line feed and carriage

return are checked as well. You do have the option to count hyphenated words as either one or two units. When you run your program, you will be asked to put in a filename. Type in the name of your ASCII file and put the correct disc into the drive. Counting will proceed before your very eyes. It's not exactly what you might call lightning fast, but you won't have time to cook a banquet.

```
10 e$=CHR$(27); PRINT e$"E"e$"H": PRINT          OF4B
20 PRINT TAB(40); "WRDCOUNT": PRINT             108C
30 PRINT TAB(22); "Wordcounter for ASCII document" 19FB
40 PRINT;PRINT                                     0957
50 count=0;cr$=CHR$(13);lf$=CHR$(10)           0E90
60 hy$="-";d1$=" "+cr$+lf$+CHR$(9);true=-1      OFBF
```

The word delimiters are defined. The word count is initially set to zero.

```
70 PRINT " Please include group number and drive in filename:" 20E1
80 PRINT "     If group      drive      then"               OF67
90 PRINT "         0          A:      just ignore"          OD66
100 PRINT "        (say) 4    A:      just key 4;"          OF39
110 PRINT "         0          B:      just key B;"          OC16
120 PRINT "        (say) 4    B:      key 4B;"              OCD4
130 PRINT                                         046C
140 INPUT "Enter ASCII filename (ad:filename.tvo): ",f$       1B8A
150 IF f$="" THEN 140                                076B
160 PRINT                                         0475
```

A message is printed on screen, to explain to the user how to enter the filename.

```
-170 PRINT "Tap a key when disc with ";UPPER$(f$); " is mounted" 1E41
180 PRINT                                         047B
190 a$=INPUT$(1)                                 0595
200 IF FIND$(f$)="" THEN PRINT "File not found":PRINT:GOTO 140 1BA5
210 OPEN "I",1,f$: a$=INPUT$(4,#1): CLOSE        OEF3
220 IF a$ <> "JOY"+CHR$(1) THEN 250            OD95
230 PRINT "Original LocoScript document, not an ASCII copy!" 205A
240 PRINT: GOTO 140                            0930
250 OPEN "I",1,f$                                058A
260 PRINT "Count hyphenated words as separate? (y/n): " ;      1D91
270 a$=INPUT$(1); PRINT a$; PRINT e$"f"; '* Cursor off now 197D
280 IF LOWER$(a$)="y" THEN ho=true ELSE ho=false 1797
```

The program checks for the file on the disc. If the file is not in ASCII format, then another prompt for the filename is displayed.

```

290 WHILE NOT EOF(1)                                0945
300 char$ = INPUT$(1, #1)                            0930
310 IF INSTR(d1$, char$) <> 0 THEN 350             0F4C
320 IF char$=hy$ THEN 340                           0A3E
330 d1=false; GOTO 370;                            0A3D
340 IF ho AND NOT d1 THEN 360 ELSE 370;            10A8
350 IF d1 THEN 370;                                072F
360 GOSUB 440; d1=true;                            0B3E
370 WEND                                            0402

```

Characters are read from the file. A check is made for hyphens. When a delimiter is found the count is added to.

```

380 IF char$ <> If$ THEN GOSUB 440                0E28
390 CLOSE 1; PRINT; PRINT e$"e"; /* Cursor back on   184C
400 PRINT "Another file? (y/n): ";                  112B
410 a$=INPUT$(1); PRINT a$; IF LOWER$(a$)="y" THEN 10  152B
420 END                                              0367
430 /* SUBROUTINE to count a word, display new count    1BBO
440 count=count+1; PRINT "Word count is":count;cr$;; RETURN 21EE

```

The file is closed and the program asks whether you want to check another file.

FOOTNOTE.BAS by Andrew Lyall

There are times when only a footnote will do. Imagine reading Hamlet's "To be or not to be..." only to be interrupted mid-verse with a scholastic aside. Poetic flow is a delicate matter, and any notes which attempt to expand and go further on the speeches of Shakespeare's main protagonists should be printed elsewhere.

Some word processors allow you to add footnotes at the press of a button. LocoScript does not provide this facility, and for Andrew Lyall the frustration was obviously too much to bear.

As a law lecturer, his documents are littered with references to specific articles, sections and subsections of the law. Not surprisingly, he has to rely quite heavily on footnotes. For easy retrieval, they also need to be numbered. This program was designed to ease that task.

You enter the contents of each footnote into the main text, at the appropriate point, and the program produces a numbered list of them. The original comments can then be deleted.

To use this program you must mark your footnotes with a "<" at the very beginning of each line. The footnote can spread over more than one line, but it must end with ">" followed immediately by [RETURN]. When the document is finished, save it as a normal LocoScript document.

Again, as with Wrdcnt.bas, the document into which you enter the footnotes must be translated into a Simple text ASCII file. Choose the option to Create ASCII file from the main LocoScript menu (Press [f7] in LocoScript 1 or [f1] in LocoScript 2). You can then leave LocoScript and

B: group 0/DOCUMENT.000 Editing text. Printer idle, Using B:
Layout 1 Pi12 LS1 CR+0 LP6 Page 1 line 4/54
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT

HAMLET To be or not to be - that is the question.
<To be or not to be
(Aristotelian philosophy made the fundamental distinction between essence
<(to be) and matter (not to be). Essence is immaterial and eternal, matter is
material and changeable.)
Whether 'tis nobler in the mind to suffer
The slings and arrows of outrageous fortune
Or to take arms against a sea of troubles
And by opposing end them? To die, to sleep;
Opposing end theme
<end troubles with the bodily action of taking up arms)
No more? And by a sleep, to say we end
The heart-ache and the thousand natural shocks
That flesh is heir to. 'Tis a consumation
<That flesh is heir to
<(the problems of being driven by human desires.)
Devoutly to be wished. To die, to sleep.
To sleep - perchance to dream. Ay, there's the rub. ↵

Footnotes are put into the main text of the document between the characters "<" and ">". This gives you the advantage of easy access to your footnotes whilst writing the main text.

B: group 0/DOCUMENT.000 Editing text. Printer idle, Using B:
Layout 1 Pi12 LS1 CR+0 LP6 Page 1 line 20/5
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT

The slings and arrows of outrageous fortune
Or to take arms against a sea of troubles
And by opposing end them? To die, to sleep;
Opposing end theme
<end troubles with the bodily action of taking up arms)
No more? And by a sleep, to say we end
The heart-ache and the thousand natural shocks
That flesh is heir to. 'Tis a consumation
<That flesh is heir to
<(the problems of being driven by human desires.)
Devoutly to be wished. To die, to sleep.
To sleep - perchance to dream. Ay, there's the rub. ↵

Footnotes
1 . To be or not to be
(Aristotelian philosophy made the fundamental distinction between essence
<(to be) and matter (not to be). Essence is immaterial and eternal, matter is
material and changeable.)
2 . Opposing end theme
<end troubles with the bodily action of taking up arms
3 . That flesh is heir to
<(the problems of being driven by human desires.)

After running the program, a footnotes file is created. This is then appended to the main text, using the "Insert text" option.



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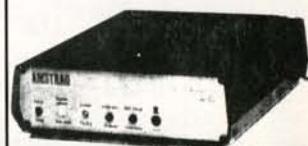
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load your program. When the program asks for the filename, give the name of the ASCII file. The program will put your footnotes into a file of your choice.

Go back into LocoScript and load your original file (not the ASCII one). Move your cursor to the end of the document and choose the option to **Insert Text** (press [f1] in LocoScript 2 or [f7] in LocoScript 1). The file containing the footnotes can be loaded and the comments appear in a numbered list at the end of your document.

The quickest way to replace the original comments with numbers is to search for the "<" using the find key. The comment can then be deleted and replaced with a number.

You are now left with the uncluttered, normal-looking text, and an attractive and lucid list of footnotes at the end of the document.

```

I: group 0/HAMLET .LOC Editing text.
about 1 F112 LS1 CR+0 LP6 Printer idle, Using B:
I:Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
HAMLET To be or not to be - that is the question. (1)
Whether 'tis nobler in the mind to suffer
The slings and arrows of outrageous fortune
Or to take arms against a sea of troubles
And by opposing end them? To die, to sleep;
No more? And by a sleep, to say we end
The heart-ache and the thousand natural shocks
That flesh is heir to. 'Tis a consumation
Devoutly to be wished. To die, to sleep,
To sleep - perchance to dream. Ay, there's the rub. (2)
Footnotes#
1 . To be or not to be
Aristotelian philosophy made the fundamental distinction between essence
(to be) and matter (not to be). Essence is immaterial and eternal, matter is
material and changeable. (3)
2 . opposing end them
end troubles with the bodily action of taking up arms
3 . That flesh is heir to
The problems of being driven by human desires.

```

To produce the finished document, the original footnotes are matched with the numbered list of footnotes at the end of the document. The original footnote text can then be deleted and replaced with the appropriate numbers.

ACSI and it will be granted!

Why is it that the ACSI (or American Standard Code for Information Interchange as it is affectionately termed by its friends) has such significance for us PCW users, regardless of whether we are English, Serbo-Croatian or Icelandic? Well, it's all to do with that ubiquitous and pesky topic – computer compatibility. ACSI was developed as a standard way of storing characters. This means it can be used across a variety of different computers and systems. It's like an all-

purpose Esperanto language in computing.

BASIC, like many other programming languages is able to understand ACSI. As dedicated users of LocoScript will know, this program is also able to translate its documents into ACSI format. Thanks to this facility, you can put the two together in the certain knowledge that two otherwise completely unrelated aspects of computing can converse with – and understand – each other.

```

10 REM *** FOOTNOTE.BAS ***
20 cls$=CHR$(27)+"E"+CHR$(27)+"H"          OC27
30 PRINT cls$                                09FO
40 PRINT "Begin each footnote on a new line starting with '<' " 0626
50 PRINT "Hit RETURN and '<' every other line." 1FFC
60 PRINT "End footnote with '>' and RETURN"   17C8
70 PRINT;PRINT                                160C
80 INPUT "Enter name of file to be footnoted: ", txtfile$ 095D
                                                1D82

```

The screen messages to the user are printed on lines 40 to 80

```

90 REM *** Extract footnotes ***
100 PRINT;PRINT                                OF5F
110 OPEN "I",1,txtfile$                         08D7
120 x=0                                         0A02
130 y=2                                         02CE
140 lno%=0                                       02E4
150 OPEN "O",2,"m:temp"                        0446
160 WHILE NOT EOF(1)                           0A05
170 x=x+1                                       093A
180 lno%=lno%+1                                0422
190 LINE INPUT #1,line$                         06C5
200 PRINT CHR$(13); "Line"; lno%                0B09
210 FOR i=1 TO LEN(line$)                      0DCF
220 c$=MID$(line$,i,1)                          0B78
230 IF c$="<" THEN PRINT #2,line$:x=x+1:NEXT i  07BF
240 WEND                                         163A
250 CLOSE 2                                      03F7
260 CLOSE 1                                      0456
                                                0456

```

The ACSI document file is opened. Each line is checked for the footnote symbol "<", if it is a footnote then the whole line is put into a temporary file, m:temp.

270 REM *** Number footnotes ***	0F57
280 PRINT:PRINT	08F1
290 INPUT "Enter name for footnote file: ".foot\$	1976
300 PRINT cl\$	0697
310 PRINT "Numbering footnotes...,"	1259
320 PRINT:PRINT	08E1
330 OPEN "I",1,"m:temp"	09EB
340 lno% = 0	044A
350 OPEN "O",2,foot\$	076B
360 PRINT #2,""	0520
370 PRINT #2,"Footnotes"	0B5D

The footnote file is set up, and the file m:temp is opened.

380 DIM ln\$(5000)	05A2
390 a=0;Z\$=">;b=1	0547
400 WHILE NOT EOF(1)	092E
410 a=a+1	0302
420 PRINT CHR\$(13);"Line ";a	0B40
430 IF Z\$= ">" THEN PRINT #2,"";PRINT #2,b". ":";b=b+1	1449
440 LINE INPUT #1,ln\$(a)	0A68
450 i%=1	026E
460 WHILE i% <= LEN(ln\$(a))	0A0C
470 Z\$ = MID\$(ln\$(a),i%,1)	0858
480 IF Z\$ <> "<" AND Z\$ <> ">" THEN PRINT #2,Z\$;	1051
490 i%=i%+1	0301
500 WEND	03F1
510 PRINT #2,""	0515
520 WEND	03F7
530 CLOSE	0420
540 ERA M:temp	0704

Footnote lines are read in from the temporary file. Each character is written to the footnote file filtering out the unwanted characters. The footnotes are numbered for the character "<".

8000 Plus needs you!

Without our readers, there would be no listings pages. We rely on the programming gee-whizadry of our readers to keep us supplied with a constant flow of material. With just a little bit of imagination and BASIC know-how, you too could see your name – and your work – in print.

We will consider all kinds of programs: listings which give you something to do for fun, new variations on old themes – in brief, anything which is either interesting or useful. There are, however, a few restrictions. Most of the programs we use are under 50 lines in length. We will accept longer listings, however, but only if they are exceptionally interesting – and polished. Consider yourselves duly warned!

To send in a program for analysis in our listings lab, you must first do the following. Save the program onto a disc in ASCII form. Write some clear documentation; this must include a description of what the program does, how to use it and details of how it works. The documentation should also be saved as a simple ASCII text file on the disc.

Send us your disc, along with a printout of the documentation, a padded envelope for its return, and a signed statement confirming that the program is all your own work, and hasn't been submitted to anyone else.

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Having problems?

We are thinking of introducing a small section in our listings pages in which we answer some of the most common mistakes and misunderstandings to which the novice in Mallard BASIC can be easy prey. If there's a topic which you would like us to cover and which you think other BASIC beginners can benefit from, please drop us a line.

How to type in a listing

So, how do you get your hands on all of these lovely listings? The answer is simple. Yes! You have to type them in. The first step in the process is to get into BASIC.

After switching on, put a copy of the CP/M master disc into drive A. When you see the A>, simply type in BASIC and a message telling you that BASIC is loaded will appear on the screen and an OK prompt.

Now you need to type in every line. Don't try to type in the column of numbers on the right hand side. They are a product of a checksum program which we will be repeating in a future issue. (See recent back issues of the magazine for further information on that.)

Make sure that you copy exactly what is written and press [RETURN] after each line. If you spot a mistake before pressing [RETURN], you can correct it using the cursor and [DEL] keys. To correct a completed line, type in edit and the line number. You can then make the correction in the same way.

When you have finished, you can read through your program by typing in LIST. This displays your program on the screen. To get a printed copy, type LLIST.

Don't forget to save your program. Type in SAVE" followed by a filename of no more than eight letters. The filename will automatically be allocated the by now famous .BAS suffix. Now you are ready to run your program by typing in RUN. There will still probably be a few mistakes lurking in the program.

You should check the line in the error message first. Use EDIT to correct the mistake, and try again. Once the program is running SAVE the correct version for future use.

Rerunning a program from disc is simple. Load BASIC in the same way as before. Then type in load" followed by the filename. You can now RUN it or LIST it as usual.

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LANGFORD

A page in the company of David Langford



Dangerous corners

One nice thing about being a small computer company is that, depending upon whom you want to impress, you can legitimately call yourself Chairman, Managing Director, Head of Programming, Marketing Consultant, Chief Buying Executive, and indeed every prestigious title not currently wanted by the other director. The snag is that you — that is, I — have to do the work of all these functionaries....

It was as Buying Executive that I met a fascinating example of real-life logical paradox. One gradually gets used to the pitfalls of trade price lists, such as having to detect by telepathy whether the figures include VAT (usually not, except sometimes) and whether "5% discount for cash with order!" applies to cheques (yes, but expect irritating delays while the cheque is tested for bounciness). The

new snag came from bulk discounts.

We wanted CF2 discs. The minimum bulk order from a company which shall remain nameless worked out at over £100. Which was fine until I noticed that when you ordered more than £100-worth, the price per disc dropped. Great! I did the sums again, using the lower figure. Oops.

Bertrand Russell would have loved this. At the price for orders less than £100, my discs cost over £100, and at the price for orders over £100, they were only ninety-odd, which raised the price to the higher rate for orders below £100, so....

Perimeter paranoia

A systems analyst would probably suggest, after pocketing a huge fee, that the neatest solution here would be a flat charge of £100 for every disc order in that dodgy region

where the price keeps oscillating. Being a cynic, I suspected that the vendors might prefer avarice to logical elegance, and played safe with a blank cheque marked "not more than (the higher price)".

This is how, in the world of computers, it can take half an hour of head-scratching to make one purchase. It also shows aspiring programmers how innocent-looking rules may lead to dangerous instabilities. The places to watch for problems are at a situation's edges or corners; for the disc purchase, the awkwardness comes where the price per disc veers in a rather ill-defined way to the lower rate.

Glitches often happen at extreme edges, at zero and infinity. That zero discs cost zero pounds isn't a problem. However, as a book reviewer I often receive parcels of SF costing nothing: when I flog the unwanted rubbish at 50p a copy, my percentage profit per volume is 100 times 50p divided by zero, which is guaranteed to boggle any business records program. Unless, of course, some programmer has incorporated the tactful message, "Division by zero? You can't do that here."

It wouldn't happen in real calculations. Think of this: a company, probably mine, makes zero profit in 1990. Whatever profit or loss it makes in 1991 will, if you're fool enough to express the change as a percentage, be infinitely better or worse than 1990's.

Locostripped

Another example which rather embarrassingly comes from real life: wearing my Chief Programmer's hat, I wrote some software which gulped LocoScript files and did nameless things with them. It was only interested in the text, and ignored headers, print controls for underlining, and so on.

But one chap's document made it seize up completely, leaving me baffled until I realised I'd failed to consider the extreme case. There was no actual text, and my program was no good at processing LocoScript files containing zero words.... After each word, and only then, it checked whether it was at the end of the file. The cure was to have it check *before* each word.

(I still haven't allowed for awkward folk who produce Loco

documents of infinite length. Once someone announces an add-on hard disc with infinite capacity, I'll have to rethink that program again.)

Point of no return

Another time when I had to worry about the treacherous corner at Point Zero was in doing the astrophysics for an SF story. The easiest way to work out certain orbits, and the time it took before spaceship A collided with massive object B, seemed to be to simulate everything on the computer and let Newton's laws of motion and gravity take their course. Unfortunately the program tended to blow up shortly before printing out its graphs of what had happened. The gravitational attraction between A and B doubles each time the distance between them halves. For the first rough simulation, I hadn't bothered to allow for these objects having any size: as their separation shrank to zero the acceleration soared towards infinity, the figures got vaster than the computer's registers could comprehend, and the program pointed a last accusing error message at me as it died.

Obviously, if one object is little and the other a planet, the program should stop calculating and simulate a loud bang when the separation between their centres drops to whatever the planet's radius happens to be. Problem solved — or only evaded? Suppose there's a tunnel right through the world and our spacecraft plunges in... does it meet awkward infinities at the centre?

This is interesting. It turns out that, as with the disc price list or the difference between water at 99 degrees and 101 degrees, the rules change when you cross an invisible line. Once below the surface, instead of growing by the inverse-square law, the force of gravity now decreases sedately with distance from the planet's centre, and of course reaches a neat zero when you get there. Sanity returns.

Before turning this corner, the calculations had overflowed because of dodgy approximations and not thinking the problem through. *Mea culpa*. When I'd put it right and cranked out my distance/time graphs, I went around for days being smug and calling myself the company's Astrophysics Director. No one seemed to believe me. ●

TIPOFFS

Give yourself a break with Tipoffs!

Overworked in LocoScript? BASIC getting on top of you? Finding CP/M too much? Don't work unnecessarily in the holiday season - come to Tipoffs, the pages that give you a break. This week there is time-saving information on LocoScript, BASIC, CP/M and Micro Design. For his tip for automating CP/M with menus, James Reed wins £30 to spend on a restaurant menu of his choice.

If you know of any good tips in LocoScript, BASIC or any well-known program, tell us - you could win holiday spending money!

Micro Tip

Good as the desktop publisher MicroDesign is, it still has one or two frustrations, such as positioning the cursor where you want the next headline to go and then finding out that the text shoots way below where it ought to be. Instead of wasting hours trying to manipulate the cursor to get it right (which doesn't happen anyway) just let the headline or text go where it wants, then form a box round it by using the Unit key ([SHIFT] [PARA])

and space bar. Having got the box to the exact size needed, press [F3] 'Copy' and by means of the cursor keys move it where you want the text to be. Press [ENTER] and the text jumps into the newly positioned box.

This technique is also useful for deleting paragraphs or other odd bits which need replacing - to delete press [F7] for 'Delete'. It is essential to get the size of the box absolutely accurate or you may lose half a line of text.

Victor Churdley, Windsor, Berkshire

On the menu

You can set up easy-to-use menus in CP/M which let you run particular programs (PIP, Mini Office, Masterfile, BASIC, Micro Design etc etc) just by pressing a number. This is especially useful if the PCW is to be used by someone unfamiliar with CP/M - no commands to type!

First take a CP/M copy disc. It should have a file J (something).EMS on it; PIP.COM; SETDEF.COM; SUBMIT.COM; and the program files you wish to run. (Let's say they're BASIC.COM and DISCKIT.COM; of course they can be any others). Here's how to set it up.

Insert the disc. At the CP/M A> prompt type PIP [RETURN]. At the * type the following. A:PROFILE.SUB=CON: [RETURN]

Now type the lines you usually put in your PROFILE.SUB. The first two must be SETDEF [ORDER(SUB,COM)] SETDEF [TEMPORARY=M:]

At the end of each line, don't just press [RETURN]; follow it with [ALT] J to force a new line. If you make a mistake, press [CAN] and the cursor moves back for you

to overwrite your error. Add an extra line at the end: TYPE MENU.TXT [RETURN] and finish the PROFILE.SUB by pressing [ALT] Z

The disc whirs; you have written a PROFILE.SUB file to disc. Now at the * prompt, type A:MENU.TXT=CON: [RETURN] and type the following. Follow the same rules as above.

MAIN MENU

Press the number of your choice and finish with [RETURN]

1. BASIC
2. PIP
3. DISCKIT

Finish with [ALT]Z again. Now type at the *

A:1.SUB=CON:
and then
BASIC [RETURN]
[ALT] J [ALT] Z

next type at the *

A:2.SUB=CON:
PIP [RETURN]
[ALT] J [ALT] Z

Monitoring receipts

I own a restaurant and wish to use my PCW to print out orders and receipts for customers. Is there a program that will do this? And is it possible to hook up two monitors to the PCW?

James Brodie, Higher Blackley, Manchester

8000 Plus: Avon's Point of Sale software should do pretty much what you want. Contact them on 0761 70543. And no, it isn't possible to hook up two monitors as far as I know.

Reference Library

A useful trick for LocoFile owners is to keep notes you often want to refer to - address lists, phone numbers or just memos - as a normal LocoFile data file on one of your startup discs.

When LocoScript starts up, it copies all LocoFile .DAT files to the memory. Hence you can call these .DAT files up any time for reference, whatever discs you have in the drive.

Malcolm MacLellan, Potton, Beds

the disc manager, move the cursor over the file you wish to insert and hit [ENTER].

If you have commands like set italic or ruler lines in the Tasword document this will cause problems, so he should keep them as clean as possible.

If there is an ASCII facility on CPC Tasword (check the manual) files should be converted to this format first.

Incidentally, files prepared with Protext on a CPC can be edited directly in Protext on the PCW on the same disc.

Mop up Memory

I have a friend with an Amstrad CPC, which of course uses three-inch discs of the same size as the PCW. Can I use word processor files that he has prepared with Tasword on my PCW?

J Rowe, Basingstoke, Hants

8000 Plus: Yes, you should be able to. In LocoScript, create a new document on the disc with the Tasword file and insert text with [F7] ([F1] in LocoScript 2). Back in

and next at the *

A:3.SUB=CON:
DISCKIT [RETURN]
[ALT] J [ALT] Z

Next time you start up your disc, the menu will automatically appear on screen, and pressing 1, 2 or 3 [RETURN] will select the programs indicated.

James Reed, Prestatyn, Clwyd

```
A>pip
CP/M 3 PIP VERSION 4.1
*a:profile,sub=con:
setdef [order(sub,com)]
setdef [temporary=m:]
type menu.txt
*a:menu.txt=con:
MAIN MENU
-----
Press the number of your choice
and finish with [RETURN]
1. BASIC
2. PIP
3. DISCKIT
*a:1.sub=con:
BASIC
*a:2.sub=con:
PIP
*a:3.sub=con:
DISCKIT
*
```

The process of making up a CP/M startup disc that will give you easy-to-use menus. This runs BASIC, PIP and DISCKIT from menus, but you can set it up to run any programs you like.

Lprinter's error

A useful little command in BASIC is

POKE 18527,90
which sends all output from PRINT to the printer instead - i.e. it turns PRINTs into LPRINTs. The command to return to normal PRINTing to screen is
POKE 18527,99
with the final number being 99, not 199 as described in the 8000 Plus Tips Collection (page 57). So you might find the following lines useful in a program that PRINTs things to screen. It enables the user to choose between screen or printed output without you having to worry about LPRINTs.

```
1000 PRINT "Press S for screen
output, P for printer output"
1010 a$=input$(1)
1020 IF a$="s" THEN POKE
18527,99 ELSE POKE
18527,90
```

On a PCW9512 the pokes are slightly different: POKE 18591,0 for the printer and POKE 18591,0 for screen.

R Glover, Petersfield, Hants

CP/M from BASIC

It's often useful to be able to run a CP/M program automatically when exiting BASIC. Here's a way to do it. Suppose that, when your BASIC program called PROG1 finishes, you want to tell the printer to expect A4 paper with the PAPER A4 command, and then run another BASIC program called PROG2, and then tell the printer to expect A5 paper with the command PAPER A5. All you have to do is include these lines at the end of PROG1:

```
5000 OPEN "r",#1,"$$.sub",128 :  
FIELD #1,128 AS a$  
5010 LSET a$=" paper a4" +  
CHR$(13) : PUT #1
```

```
5020 LSET a$=" basic prog2" +  
CHR$(13) : PUT #1  
5030 LSET a$=" paper a5" +  
CHR$(13) : PUT #1  
5040 CLOSE #1 : SYSTEM
```

You can of course put any commands in lines 5010-5030 you like instead of PAPER A4 and so on, or have as many as you like. Just put the normal command you'd type in CP/M - PIP M:=A.* or PROTEXT or DIR M: or whatever.

You don't need SUBMIT.COM on the disc to make this work, but you do of course need the programs you call (eg. PAPER.COM and BASIC.COM and PROG2.BAS above) and also need at least 1k of free space.

Lawrence Simons, High Barnet, Hertfordshire

Drawing on

Can I incorporate simple diagrams in my BASIC programs?

Audrey Roser, Doonfoot, Ayr

8000 Plus: Well, if you want to drawings and graphs, see the answer to "Drawing on BASIC" elsewhere in these pages.

But simple diagrams can be done directly in BASIC using some of its special characters, whose codes are indicated in this diagram.

For example, the character for the top left hand corner of a double-line box is 134; a horizontal double line is 138 (there are five of these); a T-shaped double line bracket, for the junction of two parts of a box, is 142; and the top right is 140. The top line of the box in the diagram would therefore be given by

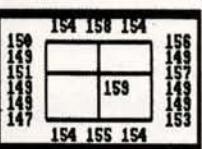
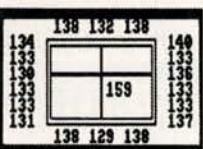
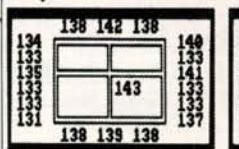
```
100 PRINT CHR$(134);  
110 FOR J=1 TO 5 PRINT  
CHR$(138); : NEXT  
120 PRINT CHR$(142);  
130 FOR J=1 TO 5 PRINT  
CHR$(138); : NEXT  
140 PRINT CHR$(140);
```

while the next line down would be

```
150 PRINT CHR$(133) +  
SPC(11) + CHR$(133);
```

and so on. A complete list of the characters available in BASIC and their codes is in the CP/M manual that comes with the PCW. Look in the CP/M index under 'Character sets'.

These box-drawing characters won't print out, by the way. LPRINT CHR\$(134) for example will produce nothing sensible. To get the diagrams printed out you just have to do a screen dump with [EXTRA] [PTR].



CPC to PCW

I have a friend with an Amstrad CPC, which of course uses three-inch discs of the same size as the PCW. Can I use word processor files he prepared with Tasword on my PCW?

J Rowe, Basingstoke, Hants

8000 Plus: Yes, should be able to. In LocoScript, create a new document on the disc with the Tasword file and insert text with [F7] ([f1]

in LocoScript 2). Back in the disc manager, move the cursor over the file you wish to insert and hit [ENTER]. If you have commands like set italic or ruler lines in the Tasword document this will cause problems, so he should keep them as clean as possible. If there is an ASCII facility on CPC Tasword (check the manual) files should be converted to this format first.

Incidentally, files prepared with Protext on a CPC can be edited directly in Protext on the PCW on the same disc.

Sorting w/o

Can you please reprint the listing that sorts things into order? I need it for arranging class lists in LocoScript into order of pupil name.

W Hills, Brighton, E Sussex

8000 Plus: Yes, but if you've got LocoFile there's a quicker way to do it: see the tip in these pages "Sorting with LocoFile". Assuming you haven't, here's the listing. Type it in as described in the "Listings" pages in this issue. Save as SORT.BAS.

```
10 DIM line$(1000)  
20 INPUT "Name of file to be  
sorted";infile$  
30 INPUT "Name of file to put  
result in";outfile$  
40 OPEN "I",1,infile$ : OPEN  
"O",2,outfile$  
50 WHILE NOT EOF(1)  
60 maxline% = maxline% + 1 : LINE  
INPUT #1, line$(maxline%)  
70 WEND  
80 FOR i% = 2 TO maxline%  
90 PRINT CHR$(13); "line";  
i%; "/" ; maxline%;  
100 FOR j% = i% TO 1 STEP -1  
110 IF UPPERS$(line$(j%)) > UPPERS$  
(line$(j%-1)) THEN 140  
120 SWAP line$(j%), line$(j%-1)
```

```
130 NEXT j%  
140 NEXT i%  
150 FOR i% = 1 TO maxline%  
160 PRINT #2, line$(i%)  
170 NEXT  
180 CLOSE
```

To use it, first save your document in LocoScript. Make an ASCII file from [f1] in the disc manager ([f7] in LocoScript 1) giving it an appropriate name such as ASC.1 and saving the new file in group 0. (Choose the "simple text" option).

Now reset the PCW. Insert your CP/M disc and at the A> prompt type BASIC [RETURN]. At the Ok prompt insert the disc with SORT.BAS on it and type RUN "SORT [RETURN]. When prompted give the name of the ASCII file you made, ASC.1 or whatever. Give ASC.SRT or something as the name put the sorted result in.

When it's finished reset the machine again and run up LocoScript. Create a new empty document or edit an existing one and while editing it press [f1] (or [f7] in LocoScript 1) and take "Insert text".

You are returned to the disc manager; move the cursor over the file ASC.SRT and [ENTER]. The sorted items are inserted into the document.

Heading for Success

On the PCW you can use the variety of LocoScript "special effects" - bold, centre text, large pitch etc. - to make headings stand out smartly. If you use headings a lot, you will find it worth while setting up phrases that store these pitch changes for you. Then at the touch of a key or two you can select heading style.

Start a new document. Suppose your own heading style is centre, bold and 10 pitch; type [+C][+B][+]P10 [ENTER]. Make sure the codes are showing ([f8], 'Options' in Loco 2, or [f1], 'Show' in Loco 1; select 'Show Codes' with [+]). Put the cursor before the beginning of the codes and press [COPY]. Move to the end and press [COPY] again; press [H]. These codes are now saved under H (for 'heading', maybe).

Now insert the codes you'd normally enter to turn off these codes: [-B][-P]. Again, move the cursor to the beginning of the sequence, press [COPY], move to the end, press [COPY] again. This time press [C] to save under C (for 'clear', perhaps).

From now on until you switch

off you can just press [PASTE] [H] to insert the codes that switch on a heading style. After typing the text of the heading you press [PASTE] [C] to return to normal style.

The only problem is that the phrases are stored in the PCW's memory and disappear when you switch off. To get round this:

LocoScript 1: While editing your document press [f8] 'Blocks'. Select 'save all phrases' - you see displayed the letters which have phrases stored under them. Back in the disc manager you'll see a file PHRASES.STD in group 0 - if you move this to your startup disc (erasing the old PHRASES file) then the phrases will always be available if you startup from that disc.

LocoScript 2: From the disc manager select [f1] 'Actions' and select 'show phrases'. Spurious phrases can be deleted with the [-] key and the correct set can be saved using the 'save phrases' option under a suitable name. To load up these phrases next session, put the cursor over the file the phrases were saved in and press [f1] selecting 'load phrases'.

Christopher Hamilton, Tarleton, Lancashire

Paging Protest

Protext often has trouble getting the page layout right in anything but single line spacing. If you use line spacing 1.5, for example, the headers, footers and top and bottom margins still work in single line spacing, throwing everything off.

This can give new page problems with 1.5 spacing on a different printer - on an Epson LQ500 24 pin, for example.

Reduce the page length and it

won't roll out the page and will turn the printer off line; calculate everything correctly and a few line feeds are left floating about to mess up the next page.

The answer seems to be to dispense with the >LS 1.5 stored command and use >OC 27,A,15 (for the Epson printer - check your manual for details of the appropriate command for your printer). Everything is now very much simpler because you can work just as if you were using single line spacing.

Mostyn Davies, Peterborough

Drawing on BASIC

Having bought a PCW, I was pleasantly surprised to discover that it is not just a word processor, but also a powerful general purpose microcomputer.

I would like to write programs to research into ecological models, and require speed (therefore a compiled language, faster than BASIC?) and graphics to plot graphs and draw pictures on screen, and print them out. What language and software would you recommend?

Andy Letcher, Sheffield

8000Plus: In increasing order of difficulty, your recommended options are:

1. Stick with BASIC and buy Lightning BASIC (£24.95 from CP Software on 0993 823463) to add the graphics power. This will enable you to draw points, lines, solid filled shapes, graphs etc. and means you don't have to learn a new language. (BASIC has its own graphics facility called GSX but it's simply too unwieldy and badly documented to bother about in my opinion).

2. Learn Pascal. This is a compiled language that works faster than BASIC because your program 'listing' is first converted by the compiler to a .COM file that you can run from the A> prompt just like PIP or DISKIT or whatever.

HiSoft do the best Pascal compiler by far in my opinion and are now doing one of those special mid-season unrepeatable offers (like the pre-season and end-of-season ones) which lets you buy their excellent program for £29: the difference in speed will amaze you. Details on 0525 718181.

Disadvantage 1: You'll need to buy a book on Pascal, of which there will dozens in your local bookshop, because the manual makes no attempt to teach you Pascal (it's actually very like BASIC so is a good language to move up to).

Disadvantage 2: You'll also need to buy a graphics add-on to do a similar job to what Lightning BASIC does for BASIC. All You Ever Wanted To Know About Graphics, The Universe and Everything 2 comes from CP Software on 0993 823463 for £24.95.

3. Cut out the middleman: learn machine code and do the whole thing yourself. It's the equivalent of learning Russian so you can read Chekhov in the original. Good luck if you try; I never could get the hang of it at all, but if you really want to do it properly, buy Arnor's excellent Maxam assembler for a giveaway £24 (0733 68909) and a good book on PCW machine code (try Michael Keys at Spa Associates, Spa Croft, Clifford Rd, Boston Spa, N Yorks LS23 6DB - £15 inc postage).

Anon

Save a file in Protext as just A:[RETURN] (or B: or M:) and you've saved a file with no name. You can edit it, copy it or delete it by referring to it the same way.

There may be no use for this tip, but there you are!

Anonymous

Blankety blank

If you want to clear the screen in CP/M, there is a quick and easy way to do just that.

All you have to do is press [EXIT][E][EXIT][H] and the text disappears as if by magic.

Poof!

**C Seaton
Bath, Avon**

Sorting with Locofile

LocoFile and LocoMail owners can use these programs to sort things into alphabetical order - for example, an index for your book. The basic procedure is that you start going through the book, page

by page, typing in each entry you want in the index as a LocoFile entry. You can have to items in the file, NAME and PAGE say. Then a LocoMail routine as shown in last month's Tipoffs makes a text file of the LocoFile file, all sorted into order for you.

Ken Neat, Belmont, Durham

Protexting time

I have three questions about Protext.

1. Is it possible to automatically prevent page breaks mid-paragraph as in LocoScript?
2. Can you automatically get headers and footers working for first and last page only, as in LocoScript, without actually inserting them manually?
3. Can I get elite (12 pitch) text as default, instead of the 10 pitch that normally comes out?

Eifion Jenkins, Pontardawe, Swansea

8000 Plus:

1. No.
2. No.
3. Yes, and here's how. First make sure you have the files CONFIG.COM, SETPRINT.COM and PCW.PTR (PCW9512.PTR on a 9512) on a disc. In command mode type SETPRINT at the A> prompt and select option 6 'Load Printer Driver'. You should see the filename PCW.PTR appear on screen (PCW9512.PTR on a 9512). Press [RETURN] to load this and return to the SETPRINT menu. Choose option 3 'set printer control codes'.

To get condensed, bold etc. in a Protext file you use embedded commands like [ALT]X then B for bold and so on. The same code usually switches the effect off again. These codes give the printer certain sequences of characters, listed in the CP/M manual on page 130-5 (p. 573 et seq. of the 9512 manual). However in SETPRINT

you can change the sequences that these letters return.

You'll see the sign @ and letters a to z together with the codes they return. You can move vertically or horizontally to different letters with the cursor keys, and when on the required key, pressing [RETURN] allows you to edit the code for that letter. Press [STOP] when you are finished with editing that letter. The current codes for the letter you're on are shown at the bottom of the screen, for instance if you move onto 'i' in PCW.PTR, the two lines read 'i on 27 4' and 'i off 27 5' - in other words [ALT]XI sends the message 27 4 to the printer, which makes it print italics, and next time 27 5, returning to normal.

The letters you want to edit are @, c and p. Change '@ on' from 27 64 to 27 64 27 77; 'c off' to 27 77; then 'p off' to 27 112 0 27 77.

Press [STOP] to get back to the main menu and save the printer driver (option 7). When you get back to Protext (option 0) you should find your documents print out in elite text.

If you don't want to tamper with PCW.PTR then you can save this file as ELITE.PTR and have that loaded as the default using CONFIG.COM and option 7 ('set printer driver options'). Or you can bring it into play at any time by the command PRINTER ELITE.PTR or the stored command >PR ELITE.PTR; similarly PRINTER PCW.PTR or >PR PCW.PTR restores the normal driver.

Set printer control codes

Reset printer	B on	Italics	i on off	Subscript	r on off
Bold	b on off	Enlarged	j k	Superscript	s t
Condensed	c on off	Normal (Pica)	l m	Underline	u v
Double-strike	d on off	Proportional	n o		w x
Elite	e on	NLQ	p q		y z
Font change 1	f				
Font change 2	g				
	h				

On : 27 112 1

Off : 27 112 0 27 77

Setting up Protext so it automatically prints out in 12 pitch instead of 10 pitch

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The result of many years research into the Football Pools by the programmer Martin Evans of C.C.S., the program is a masterpiece of expertise, and is simplicity itself to use.

- Predicts Homes, Aways and Draws
- No fiddly typing in of teams names etc and no redundant databases.
- Instant read-out or Hardcopy if you have a printer.
- Uses scientific formula based on recent form home and away, league position, goals scored etc. It has long been realised that certain combinations of these factors return a much higher than average of draws than the laws of average would expect. POOLSMMASTER looks for these factors and analyses their significance to give you the best possible chance of a win.
- Also has a "Sequence Predictor" option. Many people believe that certain numbers on the coupon come up more often than others, and over a season patterns do seem to develop. The program analyses these patterns and predicts the numbers most likely to come up next. Certainly more scientific than sticking a pin in, or family birthdays etc.

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What's afoot

I want to put in footnotes at the bottom of some pages of a booklet I'm printing out in LocoScript. Is there an easy way to do it?

J Hartwell, Gloucester

8000 Plus: Afraid not. You have to do it sort of manually, but at least you have a little leeway to change things.

Put the footnote text immediately after the line in which the reference occurs, in the main body of the text. Of course it must be preceded and ended with a [RETURN].

This means when you come to move the footnote to the bottom of the page just before printing out, you won't change the format of subsequent pages - the pages afterwards will still begin in the same place. A nice advantage of this is that you can have normal footers (displaying the page number, for example).

To rule off the footnote text from the rest of the page, it can begin with the old trick of

[+]JUL[+]RA[-]JUL (in LocoScript 1 the middle command is RJ). Footnote text goes best in a small pitch such as 15.

Just before you print out, you'll have to move all the footnotes to the bottom of their page. If your footnotes are all referred to by asterisks (for example) you can easily find them using [FIND]*.

Then look to see where the page break comes - suppose the last word on the page is 'notwithstanding'. Move back to the footnote text and [COPY] with the cursor on the [RETURN] marker which begins the footnote. Move to the [RETURN] which ends the footnote text and press [CUT] to cut it out, giving any number to store it under temporarily (zero say). Move down to the line ending in 'notwithstanding', go to the end with [EOL], and paste in the footnote just cut out with [PASTE] followed by zero. Your footnote should fit in nicely down to the bottom of the page, the next page starting where it did before. If not, force a new page after the footnote with [ALT][RETURN]. (See this month's listing on p59).

Key facts

A tip in the December 1989 issue of 8000 Plus showed how to set the delete keys to work in SuperCalc. Unfortunately when you return to CP/M the delete key doesn't work properly. Can you help?

Charles Henton, Herts

8000 Plus: If you find that keys are not producing what they should after running a CP/M program, you can reset them as follows. What you need to do is to restore the original key definitions (which are listed out in the back of the Amstrad manual).

Owners of LocoScript 2 version 2.12 or later can do it the easy way. You will find a file on that disc called LOCOCHAR.KEY. If this is copied to the autostart disc, it can be used to reset the keyboard to normal. Just add a line to your PROFILE.SUB file so that it includes these lines (this would be to run your program SC2.COM):

SETKEYS KEYS.SC2

SC2

SETKEYS LOCOCHAR.KEY

The keyboard will be reconfigured to run your program, but when you return to CP/M, the last line of the PROFILE.SUB will be executed and the keyboard

restored to normal.

If you don't have LocoScript 2.12 or later, here's what to do. You need to type the following lines into a file in the same way as you made up your KEYS.SC2. Call this one KEYS.CPM. To get the ^ symbol, type [EXTRA]; and to get \ type [EXTRA] 1/2.

66 N "C"
02 N S "Z"
00 N S "Q"
73 N S "S"
77 N S "P"
16 N "G"
75 N "H"
10 N "U"
03 N "W"
20 N "J"
E #8F "F^B^B"
13 N "F#8F"
E #90 "F^B"
13 S "N#90"
14 N "
23 N "V"
15 N "A"
06 N "F"
05 N "F"
01 N "R"
79 N "30"
16 A "K"
76 N "
79 A "E"
72 A "X"

Then your PROFILE.SUB will look something like
SETKEYS KEYS.SC2
SC2
SETKEYS KEYS.CPM

Oh, ***!

A minor gripe with Micro Design 2 arises when importing a text file into the editor from another program. When in the editor, pressing [F5] to import brings up the message A:*.TXT. Unless you know the name of your text file exactly, or all your text files have a TXT suffix (which is unlikely), you have to delete the TXT and replace it with * each time to get a directory showing all the files in group 0 of the disc. However, you can change Micro Design so that it automatically comes up with *.* every time. Work on a copy of the program, never the original!

Start up your PCW and insert the CP/M disc. If you have a PCW8512 or 8256, now remove the CP/M disc side 1 and insert side 3 of your master discs. Type at the A> SID [RETURN]. When the # prompt appears, remove the

disc and insert the copy of your Micro Design disc.

Type the following lines EXACTLY as shown. ONLY type spaces when it says [SPACE] - NOT otherwise. There are a few extra ones to make reading easier.

RA:MD.COM [RETURN]
D 684 B [RETURN]

(Check the text at the right hand side begins TXT. If it does, ...)

S 684 B [RETURN]
* [SPACE] [SPACE] [RETURN]
. [RETURN]
WA:MD.COM [RETURN]

Now the disc light should come on and the motor whirr as the altered file is written to disc. Next time you run Micro Design, the [F5] key will bring up the message *.* instead of *.TXT.

Rev M Komor, Llantwit Major, S Glam

Micro designing

A DTP program such as Micro Design is useful for designing magazine-style two-page layouts, for a small booklet for example. The following method enables users of MicroDesign 2 to achieve this layout in landscape format, without having to worry about uneven gaps and margins.

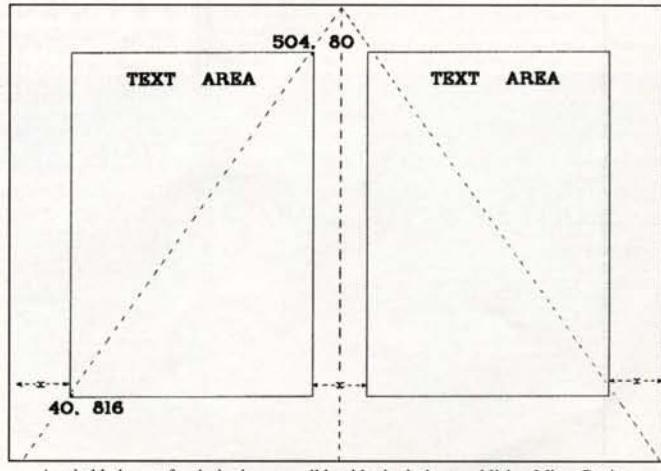
Select 256K landscape format and press W to define the text area. Press [SPACE] to select the top-right hand corner of the window, and move the cursor until it is on coordinates 504, 80 (they're shown at the bottom right of the screen). Press [SPACE] again, to select the bottom-left corner, and using the cursor keys move it to the point 40,816. This gives the text area for the left-hand page.

Assuming you have already loaded your text into the Editor,

typeset it in the normal way into the window you have defined. When it is full, the typesetting will stop. Press [EXIT], then W. This brings up the original window. Now move it over to the right-hand side of the page simply by pressing [ALT] and the right cursor, until it is hard against the edge of the paper. Finally press [ENTER] to fix it there.

Continue typesetting by hitting T then [PASTE]. Although the two text areas look offset to the right of the page, this method takes account of the fact that most printer do not print on the top inch and bottom half inch of a sheet of A4; it all comes out centrally on the printed page. Using a font such as Times 12 in these windows gives the recommended 50-60 character length lines for easy legibility.

Rev M Komor, Llantwit Major, S Glam



A suitable layout for designing a small booklet in desktop publisher Micro Design

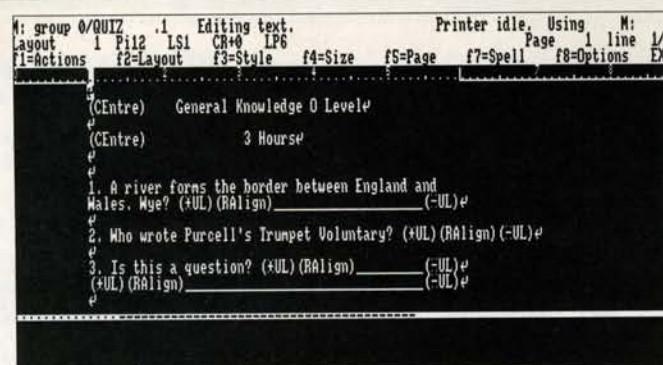
Lining up

Many documents require lines to be drawn across the page from the current position to the right-hand margin, such as forms.

Of course, the quickest way to do this is to go through the following sequence of keypresses:
[+]JUL [+RA [-JUL in LocoScript
2. Or, in LocoScript 1, that works out as;
[+]JUL [+RJ [-JUL].

If you start right up against the left hand margin, you therefore end up with a line (or, indeed, series of horizontal lines) which are ruled right across the page. Whether you're putting together forms or simple questionnaires, it is a very convenient method for separating different sections from each other.

Michael Brough
Kingston
Surrey



General Knowledge O Level

3 Hours

1. A river forms the border between England and Wales. Wye? _____

2. Who wrote Purcell's Trumpet Voluntary? _____

3. Is this a question? _____

As it looks on screen, complete with codes, and - on final printout

Blu material

The printer for an 8512 or 8256 can be stored safely on top of the monitor. Four big blobs of blutack will keep it from slipping.

Blutack can also be used to raise slightly a carbon ribbon cartridge so that the print head strikes an unused part of the ribbon - doubling the life of your carbon ribbon! Put a blob in the spindle hole and a couple at the opposite end of the casing. Gentle downward pressure to get it printing straight might be needed after a test print.

David Maxwell-Lyte,
Llanfyllin, Powys

\$\$\$\$!

A simple way of 'protecting' a LocoScript file containing sensitive information from someone else's eyes is to rename it so it ends in .\$\$\$ (from the disc manager take [f3] in LocoScript 2, or [f5] in LocoScript 1). TAXFRAUD.LET for example would become TAXFRAUD.\$\$\$. The file can't now be edited, because LocoScript thinks any file ending in .\$\$\$ is already being edited.

Of course, you can easily make it editable again by renaming it.
P Warrener, Liverpool

Scrabbling around

Fancy cheating at Scrabble? Here's how you can bump up your score by 256, 512 or any multiple thereof. First play a game, but before it's finished (preferably just after you've started) save it to a disc in the A drive. Make sure you are the top player as seen on screen.

Now restart your PCW and insert your CP/M disc. At the A> prompt replace the disc in the A drive with side 3 of your systems discs if you have a PCW 8512 or 8256.

Type SID [RETURN] and at the # put the disc you saved the game with in the A drive. Type

RA:GAME.SCR [RETURN] and then type
S01C0[RETURN]
1[RETURN]
. [RETURN]
WA:GAME.SCR[RETURN]

They're zeroes in the first line, not letter Os, and that's a one in the second line, not a letter I. The 1 bumps up your score by 256; if you type 2 instead, you get an extra 512, and so on. Now get Scrabble going as usual and reload the saved game (answer Y to 'Resume a game?' when you start up with the disc in the drive).

Adventurous types familiar with SID can go much further in this merciless hacking of the saved game. Addresses 026F to 034F

inclusive show the current contents of the board, across from left to right and downwards. Then addresses 0350 to 0430 inclusive show the contents of the board downwards as simple ASCII. By overwriting these you can set up the board to show any state of words you like. To make a letter a "blank", add 128 to its ASCII value.

You can also try setting up special customised combinations of double-letter score square, triple word squares and so on. Scrabble will respect these when you play. The code for a normal square is 02; double letter is 03; triple letter 04; double word 05; triple word 06.

Roger Batty, Reading

Numeric Decimal

Set printer control codes

Reset printer	# on	Italics	i on off
Bold	b on off	j	
Condensed	c on off	k	
Double-strike	d on off	l	on off
Elite	e on	m	
Font change 1	f	n	on
Font change 2	g	o	
	h	p	on off
		q	on off
		MLQ	

3 on : 27 112 1

3 off : 27 112 0 27 77 ■

Subscript	s on off
Superscript	t on off
Underline	u on off
	v
	w
	x
	y
	z

Fed up with your PCW beating you? Cheating at Scrabble is easier than you think

It's the Saurus

Can you recommend a Thesaurus program for the PCW?
M Nunn, Bexhill-on-Sea, E Sussex

8000 Plus: Here are two. One, by Three Inch Software, can be used only by LocoFile owners. It has 12,000 words in a 780K LocoFile file and costs £14.95; details 081 546 2754. The other is part of Mini Office Professional Plus (the plus is important), a suite of programs that includes word processor, database, spreadsheet etc. and 70,000 or so word thesaurus. You can pick it up from most mail order suppliers listed in 8000 Plus for £30-£35.

But, to be honest, it's quicker, cheaper and altogether better to buy a thesaurus in book form. Your local bargain bookshop will have one for a fiver or so.

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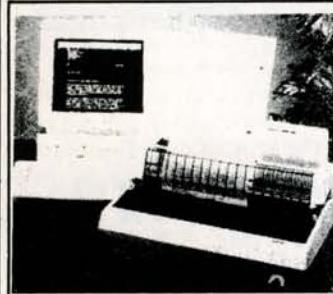
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- Locoscript 2 - Locospell Locomail

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Amstrad LQ3500.....	£209
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The Good Software File

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, Minuses a ▼. Those we think are particularly noteworthy have a corner flash.

Have fun window shopping!

Word Processors

PROTEXT/POCKET PROTEXT

£59.95/£29.95 • Arnor • 0733 68909

The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with key combinations rather than menus, but uses LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version – essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.

PLUSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Not as slick as LocoScript in its printer controls

TASWORD 8000

£24.95 • Tasman • 0532 438301 • 8000's only

Simplifies document planning by minimising dependency on layout procedures. Allows quick and easy access to parts of text by existence of a marker system. The 'Search' and 'Find/Replace' facilities are simple to use, but very thorough.

PLUSES • MINUSES

- ▲ Easy to use
- ▲ Excellent mailmerge and label-printing ability

EASY LABELLER

£29.95 (plus VAT) • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

LOCOSCRIPT 2

£24.95 • Locomotive Software • 03067 40606

As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.

PLUSES • MINUSES

- ▲ 'Find page' command makes moving around faster

- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

LOCOSPELL

£19.95 • Locomotive/Amsoft • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent sloth.

PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

LOCOMAIL

£29.95 • Locomotive/Amsoft • 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

PLUSES • MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LocoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▲ Powerful selection procedures - like a database
- ▼ Need separate program to sort and filter addresses before a print run

PROSPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar documents directly
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

POCKET WORDSTAR

£49.95 • MicroPro/Davis Rubin • 0386 853610

For many business users, word processing means Word Star. Almost everything you could need in a text processor is here and despite the title this 'Pocket' version has all the features of the original. Efficient and proven, but now showing its age

and there are alternatives unless you are committed to WordStar already. £20 extra buys the De Luxe version with spell checker.

PLUSES • MINUSES

- ▲ Probably the world's most widely used word-processor
- ▲ Documentation is complex but well-structured
- ▲ Includes a mail merge utility
- ▲ Keystroke commands fully described on on-screen menus
- ▼ Doesn't make full use of the PCW keyboard and printer
- ▼ Page and margin formatting commands awkward to use

NEWWORD

£69.00 • NewStar Software • 0245 265017

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar with a spelling checker, and the on-screen help is slightly better than WordStar's, though the keystrokes are still as obscure.

PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeler if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

PLUSES • MINUSES

- ▲ Menus simple – easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

LOCOKEY

£14.95 • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar-defined characters.

PLUSES • MINUSES

- ▲ Enables customisation to any distribution of keyboard letters
- ▲ Handles any combinations of accent and character
- ▲ Is fun and easy to use
- ▼ Will only be of limited use

ANSIBLEINDEX PLUS

£34.95 • Ansible Information • 0672 62576

The upgraded version of the LocoScript document indexer. Type in your LocoScript document as normal highlighting the words to be indexed with a LocoScript (+RV) code. The program will then compile an alphabetical list of entries complete with the page number on which they appear. A friendly, useful little package.

PLUSES • MINUSES

- ▲ Don't need to convert files into ASCII files
- ▲ Word counter also included
- ▲ Runs with both LocoScript 1 and 2

- ▲ One index can be created for a series of documents
- ▲ Indexes can be edited on screen
- ▲ Index entries can be inverted; instead of 'mutton pie,' for example, 'pie, mutton.'

Accounts

VITAL PROCESSOR SERIES

Easy to use

£29.95 - 39.95 each • Vital Software • 0732 810330

Series of three programs designed to help you look after your money and your assets. The Savings Processor is ideal for someone with a portfolio of stocks and shares; it tells you your 'net worth' like a balance sheet. The Insurance Processor helps you make an inventory of all your possessions and put a value on them, while the Income Processor helps you keep tabs on your incomings and outgoings.

PLUSES · MINUSES

- ▲ Income Processor allows you to budget efficiently
- ▲ Insurance Processor can complete inventories room by room
- ▲ Savings Processor is a fast and efficient way of keeping track of share values
- ▼ You have to be keen to do all the research
- ▼ It can be time-consuming
- ▼ With the Income Processor, it's difficult getting all the information you need from the manual
- ▼ It's not always clear how some of the operations work

CHECK ACCOUNT II

£14.95 • Molesoft • 03722 75053

Written specifically for the home user, this program maintains four accounts per disc in familiar bank-statement form. Its analysis feature shows trends and forecasts how much you can afford to spend. The interest-estimating feature can keep track of Building Society accounts where interest earned varies with the amount deposited.

PLUSES · MINUSES

- ▲ Designed solely for home accounts
- ▲ Easy to learn from demo file
- ▼ Relatively slow screen update
- ▼ You have to be organised to keep it up to date

DIGITA BUSINESS CONTROLLER

Easy to use

£69.95 • Digita International • 0395 270273

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced, and problems with VAT handling—not really for VAT businesses. For other small business it's very good value.

PLUSES · MINUSES

- ▲ Delight to use with a very good manual
- ▲ You can get the system working in minutes
- ▲ Financial ratios can be included in reports
- ▼ No facility for producing aged debtors/creditors list

BOOK-KEEPING AND ACCOUNTS

£69 (with invoicing, £80.50; with invoicing and stocks, £92) • Manx Tapes • 0624 813071

Recently updated suite of programs advocating a very traditional style of double-entry book-keeping. Useful demonstration disc also supplied with more than 200 example accounts.

PLUSES · MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

COMPACT ACCOUNTS

£199.00 • Compact Software Ltd • 0628 777456

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date.

PLUSES · MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be used in WordStar, Multiplan or SuperCalc 2
- ▲ Superb prepayment facility
- ▲ Can run a number of companies separately
- ▲ Easily transported to bigger computers
- ▼ Lots of disc swapping necessary
- ▼ Can be slow to use—it runs in Mallard Basic
- ▼ Quirks in cash allocation routine and account code system

M.A.P. INTEGRATED ACCOUNTS

Powerful

£249+VAT • MAP Systems • 061 624 5662/3

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camssoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

PLUSES · MINUSES

- ▲ A very comprehensive and professional package
- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different periods
- ▲ Facility for handling prepayments and accruals
- ▲ Able to print full management accounts
- ▼ The size of the programs means lots of disc swapping
- ▼ All normal responses need to be in upper case

CORNIX SIMPLE ACCOUNTS

£69.95 • Cornix • 0234 219969

Simple cash-book style package which allows you to keep track of debtors and creditors (though not aged ones). Simple to use and you can make changes if you make a mistake. Slow to use for complex operations and number of entries in given period is limited, but very good simple program for small businesses.

PLUSES · MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▼ Slow for complex operations
- ▼ Ability to alter figures won't please accounting purists

CAMSOFT PSIL

£180.14+VAT • Cambrian Software • 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

PLUSES · MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen as you create them
- ▼ Constant need to input full five-digit account codes
- ▼ No final accounts reports available on nominal ledger
- ▼ No facility to run the ledgers in different accounting periods

IN BUSINESS

£149.90 • Cavalier Software • 01-639 6683

A comprehensive integrated package. Comprises 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses.

PLUSES · MINUSES

- ▲ Other packages (eg: 'Teleadd' address book) can be added
- ▲ Comprehensive range of features when used as a package
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes, useful summaries
- ▲ Interesting forward planning facility in stock control
- ▼ Manual gives you a confusing number of options

SMALL BUSINESS ACCOUNTS

£69.95 • NewStar • 0245 265017

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

PLUSES · MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems for the novice
- ▼ Manual is really for the PC

SAGE POPULAR ACCOUNTS

Best general buy

£87 • Sagesoft • 091 2181555

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of setting up. But a number of limitations, eg, the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

PLUSES · MINUSES

- ▲ Clean, tidy and logical screen layouts and menus
- ▲ Easy to set up and use with excellent documentation
- ▲ Good audit trails and VAT reports
- ▲ Can produce formatted trial balances
- ▼ Restrictive account numbering system
- ▼ Only single Nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer—need 17 pitch daisywheel

M.A.P PAYROLL

£199+VAT • MAP Systems • 061 624 5662

PLUSES · MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis is broken down into departments
- ▲ System prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility (but can record all amounts paid)
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

SAGESOFT POPULAR PAYROLL

£61 • Sagesoft • 091 2131555

PLUSES · MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▲ Very easy to install
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

COMPACT PAYROLL

£139.00 • Compact Software Ltd • 0628 777456

PLUSES · MINUSES

- ▲ Supplied with test data
- ▲ Facility to change employees tax codes following budget
- ▲ Can run payroll for several companies
- ▲ Program available for PC compatibles—data transportable
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed nothing can be changed
- ▼ Most expensive payroll program

CAMSOFT PAYROLL

£60+VAT • Cambrian Software • 0766 831878

PLUSES · MINUSES

- ▲ Full payslip displayed on screen, any item can be amended
- ▲ Facility for freehand narrative on any payslip
- ▲ Uses M drive for programs to speed operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

CHECK ACCOUNT TWO

£14.95 • Molesoft • 0372 275053

Written specifically to keep track of personal household accounts. Can store the details of up to four different accounts per disc, records all withdrawals and deposits and will allow an inspection of the current state of any account at any time. It also reveals both the minimum and maximum figures to which the balance has either sunk or risen over previous or current months. Also incorporated are comprehensive interest-calculating options. A solid, competent package.

PLUSES · MINUSES

- ▲ No double-entry book-keeping or VAT returns to wrestle with
- ▲ Very easy to use
- ▲ Carries last month's spending levels forward into this month
- ▲ Tiered interest rate option available

DATA - ACCESS

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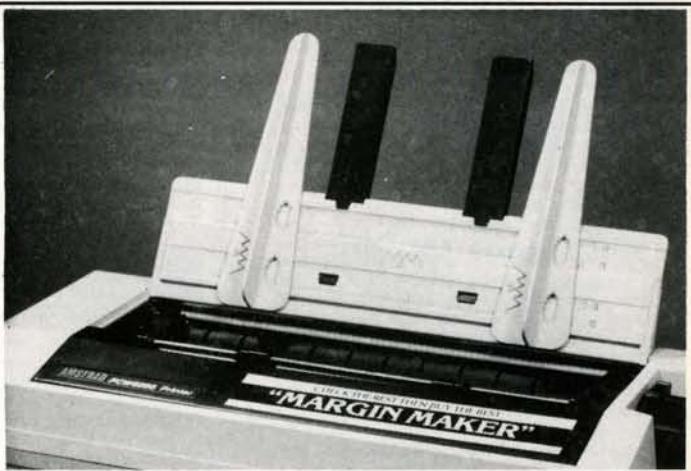
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EASI-ACCOUNTS SYSTEM

£23.95 • Arctan Computer Ventures • 1 Foxwell Square, Southfields, Northampton NN3 5AT

Another PCW accounts package this time for the small business man or the very organised home user. Works on the traditional system of ledgers with up to 500 entries (or individual transactions) allowed per ledger.

PLUSES - MINUSES

- ▲ Comprehensive List and Search facilities
- ▲ Manual assumes you know nothing about accounting and is, on the whole, well-written
- ▼ Not a particularly easy package to use
- ▼ You would have to be exceptionally well-organised to use it

MONEY MANAGER PCW

£49.95 • Connect Software Ltd • 081 743 9792

This accounting package has been designed for individuals, small businesses and clubs – anyone who might find a larger accounting package daunting. The program concentrates on income and expenditure, each file covering a 12-month period with up to 500 entries per month.

PLUSES - MINUSES

- ▲ Up to 20 different kinds of accounts are catered for
- ▲ Up to 50 transaction codes help categorise income and expenditure
- ▲ Needs little computer or accounting expertise
- ▲ Information can be displayed in the form of a bar or pie chart
- ▼ Too limited for bigger businesses
- ▼ Over-featured for domestic use

Utilities

BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure.

PLUSES - MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Encourages structured thinking
- ▲ Versatile; many different editing facilities
- ▲ Results can be fed into a word processor for polishing up
- ▼ Namesakes must be exact matches
- ▼ Manual is on disc, so you can't consult while using BrainStorm unless you print it out

PCW DRAW

£39.95 • HTB Computing • 0794 516279

Draughting package written specifically for the PCW machines. Program is teaming with features - built-in shapes and free-hand drawing facility - which, used with practice and imagination, could provide professional-looking output.

PLUSES - MINUSES

- ▲ Very comprehensive text entry and printout format options
- ▲ ZOOM facility allows you to edit small sections of a draught pixel by pixel
- ▲ Many useful functions: different line thicknesses, hatching ..
- ▼ No support for plotting devices like mouse or light-pen
- ▼ PCW Draw doesn't consider the PCW's screen aspect ratio: on-screen drawings look twice as high as wide

PCW TOOLKIT

£24.95 • Moonstone Computing • 041 941 3120

A user-friendly data recovery package for the PCW. Provided you can find the contents of the damaged file, roll out a new one, sector by sector, on M using PASTE.

PLUSES - MINUSES

- ▲ Perfect for the complete novice
- ▲ Clear, confidence-boosting manual
- ▲ Can recover data varying in amounts from a few bytes to a complete disc.

PRO-PERFORMER

£59.90 • Electromusic Research • 0702 335747

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features

and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

PLUSES - MINUSES

- ▲ Icon-based screen
- ▲ Can record lines independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Facility for slow recording and fast playback
- ▲ Step-time recording for strict in tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over arrangements
- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

JOB ESTIMATING & PRODUCT COSTING

£79.90 each • Cornix Software • 0243 219969

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines - recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

PLUSES - MINUSES

- ▲ Excellently-written manuals
- ▲ Simple and robust to use
- ▲ Changes in material costings instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Only suitable for small to medium-sized businesses
- ▼ Can't add new components to a description

TEMPDISC 8.2

£19.95 • Thurston Techniques 0395 277496
8512s only

Disc of ready-made templates to be used inside LocoScript 2. All you have to do is find the particular template to suit your requirements and then fill in the details. Vast selection of borders is excellent for personalising labels and envelopes.

PLUSES - MINUSES

- ▲ Has included files to complement LocoMail's invoicing facilities
- ▲ Very easy to use
- ▲ Vast range of templates available
- ▼ Not so good if you don't like lots of visual trimmings

FORMS BOX COMPENDIUM

£19.95 • Disc Design • 0337 7444

Fully compatible with LocoScript 1 and 2, this disc provides 70 different kinds of forms for home and office use. You can either fill them in on the screen, save and print them out or print them out and fill them in later. A solid, no frills product.

PLUSES - MINUSES

- ▲ Very easy to use
- ▼ Will only print out on A4 size paper

POOLS MASTER

£19.95 • Intraset Ltd • 02572 76800

This program helps you select the numbers to cross on your pool's coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (going on the numbers which have provided draws in the past).

PLUSES - MINUSES

- ▲ Very easy to use
- ▲ More accurate than the newspaper pundits
- ▼ Entering form results from week to week is tedious

LOCOFONT I

£19.95 • Locomotive Software (0306 740606) • 8000s only

A selection of new fonts to help you break out of the standard LocoScript typeface. There's a very good selection of styles to choose from: 'handwritten' styles look very good as do the Copperplate and Script styles. The Roman and Standard fonts are more practical. The new characters are reproduced very well indeed. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

PLUSES - MINUSES

- ▲ Eight new fonts, one coming for free
- ▲ Each style supports all accents, characters, etc.
- ▲ Relatively cheap and easy to use
- ▲ Can break out of that one-pattern printout
- ▼ Can't mix styles in one document
- ▼ Limitations of a 16 dot pattern means that the quality cannot be brilliant

PS HEADINGS

£11.95 • Orb Systems • 081 690 8534

An updated version of the original product, with a major improvement in speed. A must for all Protext users who need to incorporate high quality large print for letter headings and so on. Facility to alter stylistic details such as shading, underlining and triple-strike printing.

PLUSES - MINUSES

- ▲ Easy to use
- ▲ Range of styles
- ▲ Good manual
- ▼ Only one font available (although in two sizes)

TAS-SIGN

£29.95 • Tasman Software • 0532 438301

Takes time to print out but you can print signs of up to five lines of text up to seven inches high with up to 32 characters in each. Four fonts, eight hatching patterns, and you can print lengthways on continuous paper for long signs.

PLUSES - MINUSES

- ▲ Wide range of fonts and shadings
- ▲ Long signs will print out in 'landscape' (sideways) format
- ▼ Long signs take time
- ▼ Some symbols (yen signs etc) won't print out on PCW

GILLIGAN'S GUIDE

£29.95 - 49.95 • NG Gilligan • 0629 56347

A geographic information program based on the Ordnance Survey system. Concentrates on a given area loosely 15 square miles; it will list all the places included on the map in alphabetical order with their grid references. Also gives you information about the sites and will locate them on the map. You can also interrogate the system so that it only gives you details and locations of sites of special interest.

PLUSES - MINUSES

- ▲ A thorough, versatile and easy to use package
- ▲ System can be interrogated in a number of interesting ways
- ▲ Breaks sites down into areas of specific interest
- ▲ You can commission your own made-to-measure guides

STAR TRACK

£14.95 • Discovery Software • 081 840 5252

A fun and informative program with which you can display on your computer screen all of the 88 constellations and 600 or so stars that are recognised by today's astronomers. You can also see how their positions in the sky change depending on your location (which could be anywhere in the world) and the time (any time between 1000 and 2999 AD).

PLUSES - MINUSES

- ▲ Excellent manual with helpful practice exercises
- ▲ Comprehensive list of ready-made latitudes and longitudes supplied
- ▲ Cycle option transports you forward a month at a time so that you can chart the stars' progress
- ▼ Screen displays could be more exciting
- ▼ Moon and planets aren't included

POCKET DATADATE

£24.95 • A4 Ideas • 0249 815082

An invaluable utility for those who crave date-related trivia. Fully operational under LocoScript 2, Pocket Datadate even prints filofax-sized text.

PLUSES - MINUSES

- ▲ Program recently updated
- ▲ Very informative
- ▲ Ideal for quizmasters
- ▼ Only works with LocoScript 2
- ▼ Documentation currently on disc

PCW SUPERDOS

£29.95 • Encyclasoft • 0270 811890

Fills the gap between the friendliness of LocoScript and sparseness of CP/M. Has the ability to copy multiple files at once, and can back up an entire directory.

PLUSES - MINUSES

- ▲ Printable 'notepad' facility
- ▲ Makes CP/M less daunting to use
- ▼ Need to leave SuperDOS for some functions

FACTOTUM

£14.95 • Tudor Systems • 0622 861775

The combination of LocoScript 2, LocoFile and LocoMail will give you access to this extremely useful catalogue of information. As well as a diary, incorporating special date reminders, there is an address and telephone list, and a tax planner.

PLUSES · MINUSES

- ▲ Works from LocoScript
- ▲ Very efficient letters section
- ▲ Easy to use
- ▼ Poor presentation
- ▼ Won't work with an unexpanded 8256
- ▼ Assumes knowledge of LocoScript

SUPERZAP

Public Domain · Various suppliers

A disc editor with a difference - one key commands taken from adequate menus permit easy operation. Superzap allows you to examine both the structure and contents of the M Drive. Lack of print function is an irritating pitfall - this command is even disabled in CP/M.

PLUSES · MINUSES

- ▲ Very easy to use
- ▲ Simple one key commands
- ▲ Menu driven
- ▲ Fast 'find' function
- ▼ No copier
- ▼ Numbers can only be entered in hex

DATA DIARY

£16.95 · A4 Ideas · 0249 815082

More PCW-generated diary inserts for use at home or in the office. The program works from within LocoScript so you can make use of all LocoScript 2's text and style enhancements. Inserts feature year to a page, calendars, month at a glance planners and page a day formats.

PLUSES · MINUSES

- ▲ Buy it at any time of the year and you will be supplied with next 12 months' supply
- ▲ 2 versions available - for A4-size and Filofax-size printout
- ▲ A solid, no-frills product that's easy to use

INVESTOR

£29.95 · B & BB Software · 0240 242946

Program has been designed to assist the share-owner in the management of a portfolio and to help in the choice of shares to buy and sell. It allows up to 300 stocks, shares or unit trusts to be kept in its library. Stocks are listed in order of their performance and you can call up graphs of price movement for individual stocks.

PLUSES · MINUSES

- ▲ Manual is very easy to follow
- ▲ Records share-holdings, dividends and cash accounts
- ▲ Dividend printout for tax purposes
- ▲ Four methods of share price analysis
- ▼ No ability to calculate taxable gains
- ▼ Graphs are small and lack expansion facility
- ▼ 9512 owners won't be able to print out the graphics

PERSONAL TAX PLANNER

£24.95 · Digma International · 0395 270273

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill). Can, for example, find out whether married couples would be better assessed separately or not. Personal Tax Planner is updated every year - look out for the most recent version following March's budget.

PLUSES · MINUSES

- ▲ Simple to use
- ▲ Needs a minimum knowledge of the tax law
- ▲ Forces you to keep your tax details in one place
- ▼ Limited application - might only use it once a year
- ▼ Can't handle unusual cases
- ▼ Program updates (for a new allowance level) cost £10

KNIFE PLUS

£19.95 · Hisoft · 0525 718181

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors onto a fresh disc which you can then patch up without risking the original.

PLUSES · MINUSES

- ▲ Copies all uncorrupted data from damaged discs
- ▲ If boot sector damaged, will copy good boot sector onto disc
- ▼ Requires some knowledge of basic disc structure
- ▼ Manual not written for beginners

WISE ONE

£34.95 · Swallowsoft Publications · 0420 63793

An expert system - you input rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in. From PO Box 107, Walton on Thames, Surrey KT12 5PQ.

PLUSES · MINUSES

- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules - need programming instinct
- ▼ Manual dry and academic

FLIPPER 2 PLUS

£29.95 · Software Imperative · 0225 425315 · 9512/8512 only.



Can do everything the original Flipper did and more. You can now flip Mini Office and LocoFile and will have no problems with whatever version of LocoScript you're using.

PLUSES · MINUSES

- ▲ Easier to install than its predecessor
- ▲ Can flip between environments in as little as 2 seconds
- ▲ Professionally-presented documentation
- ▲ Works with most CP/M programs, LocoScript and BASIC
- ▼ Still won't work with many self-loading games
- ▼ Be careful of state of printer and disc drives when flipping.

SUPER TYPE II

£14.95 · Digma International · 0395 270273

A program for users of LocoScript and CP/M programs, which modifies the fonts used by the PCW printer. SuperType has 4 'business' and 'novelty' fonts. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once - after that, the new chosen font is available.

PLUSES · MINUSES

- ▲ Once installed, you can totally forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ All LocoScript's print size and style options still work
- ▼ You can't mix different fonts in the same document

DAATAFAX

Basic version £39.95 (with Microfile)

£49.95 with mouse £79.95 · Kempston Data · 0234 855666

Used with personal ring-binder, it helps you keep track of names, addresses and appointments. Prints out data in a form that will fit the average organiser.

PLUSES · MINUSES

- ▲ Flexible and easy to use; saves buying inserts
- ▼ Not very sophisticated: keeping it up to date is tedious

DHCP 12-TRACK SEQUENCER SOFTWARE

£45 · DHCP · 0440 61207

The second add-on 'recording studio' for the PCW consisting of MIDI interface and software. Can cope with up to 12 tracks, all of which are polyphonic and which can be as long as the PCW memory allows. Can also cope with quite advanced instruments.

PLUSES · MINUSES

- ▲ Cheaper than its competitor
- ▲ Tracks can be bounced to enable several tracks to all be put into one
- ▲ Looping can start/end at any bar
- ▼ Manual is skimpy
- ▼ No editing possible without re-recording whole tracks

DTP

THE COMPOSER'S PEN

£75.00 (£30.00 pocket version) · Composit

Software · 0952 595436

A sophisticated program which allows you to write musical

manuscripts, complete with time signatures, key signatures and any other notation you require. Changes to the manuscript can easily be accomplished, and it can even transpose music into different keys. A vital tool for the composer of every kind of music.

PLUSES · MINUSES

- ▲ Good print quality
- ▲ Easy to use
- ▲ Allows multi-part compositions
- ▲ Complete range of musical notation
- ▲ Transposes from key to key
- ▼ Slow in use

NEWSDESK INTERNATIONAL

£25 (with lightpen £50) · The Electric Studio · 0462 420222

Versatile package with a very wide range of graphics facilities and high quality headline text. Page make-up is flexible, though the program can be a bit cumbersome, mainly in text handling. Same graphics facilities as Electric Studio's 'Art' package which it supersedes.

PLUSES · MINUSES

- ▲ Good control over the elements on the page
- ▲ Powerful graphics facilities
- ▲ Good quality print in headlines and large fonts
- ▲ Can use font editor to create your own high quality fonts
- ▼ Text-handling slow and cumbersome; editing is difficult

STOP PRESS

£49.95 · Database · 051 3572961

An excellent DTP Package, very strong on graphics, very well designed, and once you get used to it, easy to use. Sophisticated text handling features such as autoflow, but can't edit text - that all has to be done in your word processor before flowing the text in. A lot of good fonts supplied too.

PLUSES · MINUSES

- ▲ Excellent graphics facilities, good as any graphics program
- ▲ Wide range of text styles with text autoflow
- ▲ Menu and key commands system suits beginner and expert
- ▼ No text editing ability

THE DESKTOP PUBLISHER

£29.95 · Database Software · 051 3572961

Tremendous value for money. Graphics and text boxes can be easily moved around and page layout is clear. You can edit text from within the program, using LocoScript-like commands to set bold and italics. Good range of fonts and graphics too, at half price of its rivals! Mouse optional for £50 more.

PLUSES · MINUSES

- ▲ Text editor allows you to edit articles to fit the space easily
- ▲ Boxes and general layout easy to manipulate
- ▲ Works with three mice, but fine with keyboard alone
- ▲ Half the price of other packages
- ▲ Good range of fonts and graphics, and can design your own
- ▼ Can't fix size of text boxes - they expand to take all the text
- ▼ Headlines can look a bit jagged

LATE EXTRA

£19.50 · Exemplar Designs · PO Box 683, Bath, BA1 1XU

A Stop Press add-on consisting of a collection of 11 fonts that cover the range of type styles and sizes needed to create a balanced page. Also supplied on disc is a 13-page book, describing how to create your own professionally-produced publication. Allows you to create a good-looking page with clear text.

PLUSES · MINUSES

- ▲ Good range of 11 complementary fonts
- ▲ Can adapt template for own use
- ▼ Time-consuming
- ▼ Text needs reducing for best results

MICRODESIGN II

£59.95 · Creative Technology · 0889 567160

The ultimate DTP package for sheer printout quality; Creative Technology regard the words and the graphics as being equally important, hence the program's 'integrated page processor' label. Runs on all three machines with high quality results.

PLUSES · MINUSES

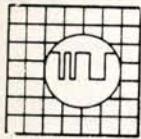
- ▲ Has full 24-pin printer compatibility
- ▲ Easy and fun to use
- ▲ Excellent text-editing facilities
- ▲ Fully compatible with other word processor and DTP packages
- ▼ Won't run with Flipper

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Gunter Wittenberg,
8000 Plus, February 1990.

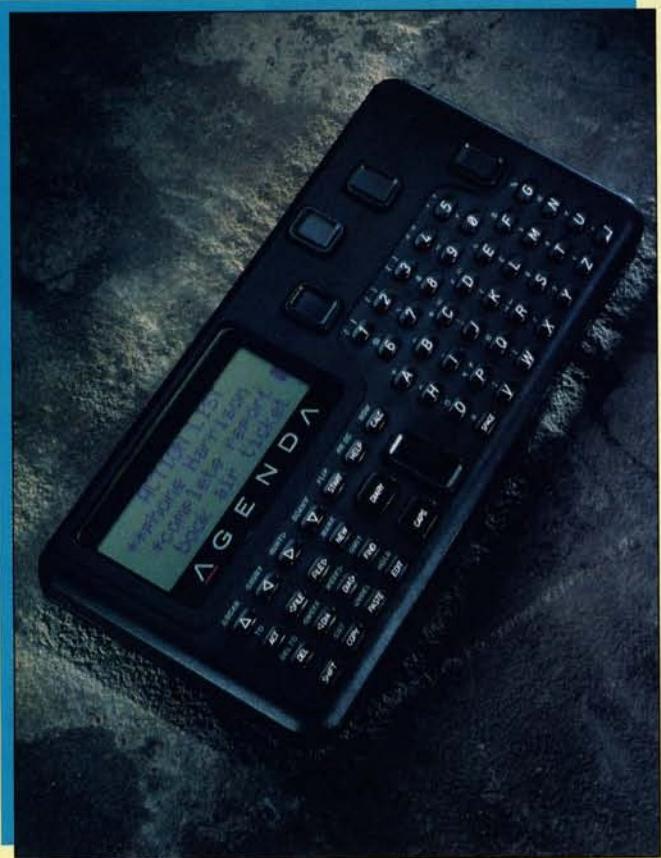


Gunter Wittenberg

"Microwriter say that you will soon be writing as quickly as you can long-hand... Their claim, if anything, is over modest. Within an hour of starting to learn the key combinations, I was typing as fast as I could write long-hand..."

Rod Lawton,
8000 Plus, February 1990.

Our verdict when we recently reviewed the machine?
Performance 4/5 ... Ease of use 4/5 ... Documentation 5/5 ...



Don't despair those of you who missed last month's competition in which we were giving away a free AgendA to each of the three lucky winners. You can now - available through these pages alone - buy a £195 AgendA with up to £60-worth of accessories for a special all-in price of £199. And that's inclusive of VAT.

Not only is the AgendA (winner of this year's British Design Award) the world's smallest word processor, it is a powerful and flexible free-form database too. Our special offer includes a 32K RAM AgendA (complete with internal nicad batteries, charger and manual), an additional 32K RAM plug-in memory card and an RS232C cable which has been set up to plug straight into a serial interface (available from your local dealer if you haven't already got one.) The whole package also comes with simple step-by-step instructions showing you how to connect the AgendA to your PCW.

You can use the AgendA absolutely anywhere, both to help you organise your daily life and to produce letters, reports, memos and notes which can easily be transferred to your PCW. Thanks to a comprehensive keyboard (A-Z keys, function keys, numeric keypad and rapid text-entry microwriting keys) the AgendA is fast and easy to use despite its small size. And learning to Microwrite takes less than half an hour ...

Expanding range of optional extras

There are a number of accessories available for the AgendA including French and German phrase books, PC communication pack, Mac Pack, parallel cable, programming language (the recently released BASIC code). A comprehensive spreadsheet and a very powerful maths and finance plug-in card are to be released imminently.

Transport files between different computers

The AgendA can be used to easily transport ASCII files between different computers. You can move such files between your PCW and a PC or an Apple Macintosh. This is all the easier thanks to the powerful PC and Macintosh communications packages available as an optional extra.

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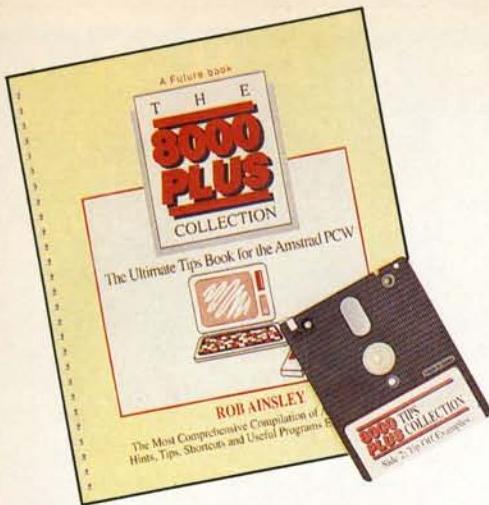
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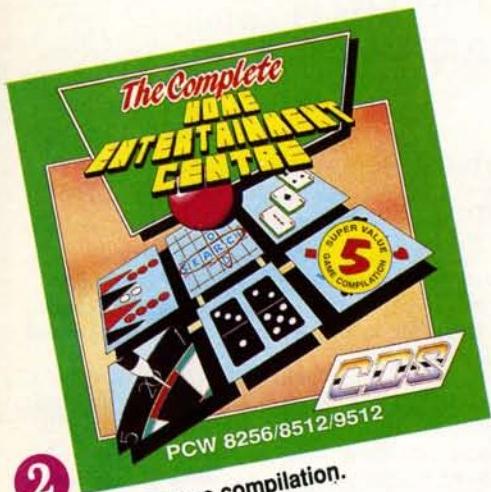
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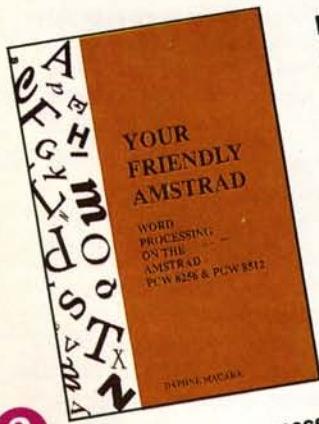
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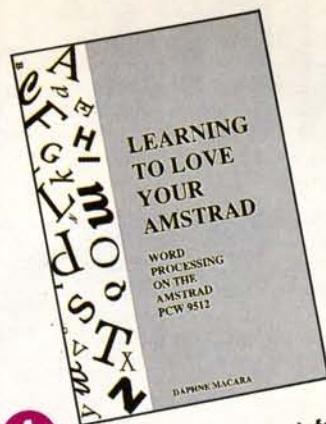


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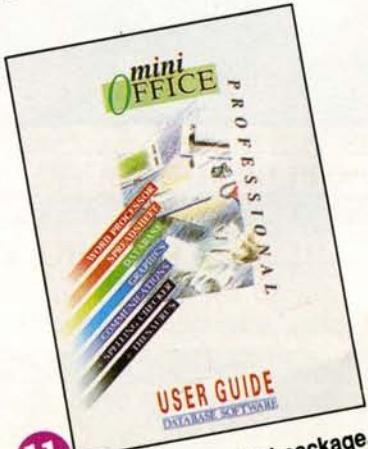


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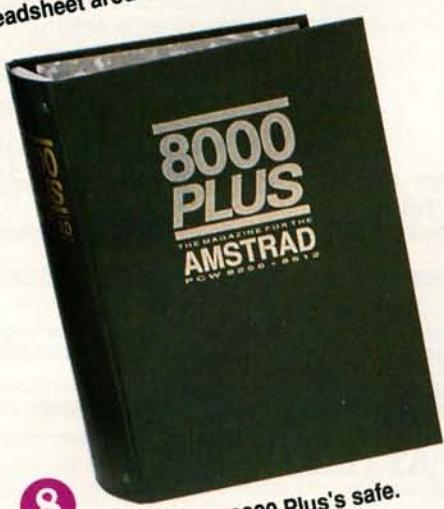


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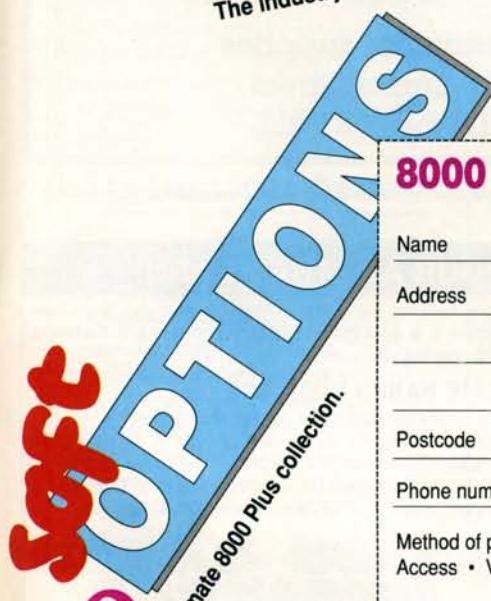
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Buy a gold-embossed binder and watch your collection of 8000 Plus grow into the definitive library of PCW information. | SAVE £20 | | |
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POSTSCRIPT

Have you any axes to grind or causes to defend?

An anthology of praise, scepticism and complaint is here compiled from your letters this month. If you have anything to say about 8000 Plus or PCW-dom in general, please write to us; after all, these are the pages where you have your say. Send your missives to 8000 Plus, Postscript, 30 Monmouth Street, Bath BA1 2XF.

Still trading?

Could you please be so kind as to let me know if the Electric Studio who used to advertise in your 8000 Plus a good while ago are still trading? Many thanks.

MJ Allen, Kent

8000 Plus: Indeed they are; their 'phone number is 0462 420222. They are currently selling their DTP program for the PCW, Newsdesk International, at £25 plus VAT.

To case or not to case?

I recently bought an AMSOL disc storage box which holds 15 cased or 30 uncased discs. Could you advise me whether you consider that storing discs uncased renders them more liable to damage or corruption than if they are cased? Somehow I feel that this must be so, assuming that in each instance they are handled with reasonable care.

Peter Jennings, Swansea

8000 Plus: It makes absolutely no difference whatsoever. 3 inch discs are, on the whole, fairly resilient. The plastic disc cases are only really necessary for protecting the discs when they're in transit.

The Times are a-changing

Congratulations on having the bravery to revise what was and still is an attractive and individual layout. I'm glad you've retained the outer margin on pages. But may I suggest you have another look at the setting of your editorial on page 5 of the June issue. Reverse blocks can be tricky and I find that this one is not easy to read. By contrast, the yellow-on-black reverse on page 90 of the same issue is easy to read and comes out well.

Eric Newell, Merseyside

The redesigned 8000 Plus is absolutely ghastly. It is almost unreadable. For goodness sake give up the multi-coloured gimmicks and the distracting vertical rulings.

Do what you like on the front cover and let the advertisers do what they like on their pages, but please give us clear black print of reasonable size on semi-matt white paper on the pages that we are supposed to read.

PN Ridout Andover, Hants

8000 Plus: Thank you for your letters. The new look of the magazine continues to provoke more letters than we know what to do with. It's not a subject that leaves many of you indifferent, either. But in a bid to soothe your frayed eyesight once and for all, we've increased the size of the type further this month. Here's hoping.

Spot the difference

Dear Auntie Sharon, please can you help me with my latest problem?

I am old, grey and retired, but really do try to keep up with modern life. I got used to males wearing earrings (only last week, acutely) but have just read in a computer magazine this article by a chap called Tim Smith. The photo-illustrations clearly show him wearing a bracelet on each wrist.



"THEY WANT ME TO DO SOME
TV ADS FOR WASHING UP LIQUID"

Am I getting staid? I can hardly wait for your reply. PS: Apart from the worrying point mentioned, the photo-illustrations are extremely helpful, and technically brilliant. Speaking as a formerly obsessive amateur photographer who has (almost) kicked the habit, I must admit that I couldn't have done them better myself!

"Anxious" of Ashtead
(AKA Leslie Griffiths), Surrey

8000 Plus: You're absolutely right. In fact, we spotted it too. Which is why, under Article 2, Subsection 41 of the 8000 Plus Employment Act, Tim Smith was immediately placed on trial for being in possession of a pair of remarkably feminine-looking hands becomingly embellished with two gold bracelets. After some eleventh hour rhetorics of the most agile nature on the part of Mr Smith, he was found guilty as charged.

He is now working for another magazine within the group and can be found on the third floor, gold bracelets intact, sporting a set of perfectly manicured nails and a rather pleasing pair of pink pyjamas.

Nimble rams

Reading this month's mag, I saw in Postscript that you intended to discuss castrated rams and my hopes soared that my query on how to eliminate this beast (humanely, of course) from my LocoSpell dictionary would have been answered. However, it appears that this nimble animal has escaped from your pages, presumably able to jump as high as it can bleat.

Bernard Wilkie, Coulsdon, Surrey

8000 Plus: Sorry about that, Mr Wilkie. The letter in question (was it yours?) had to be removed at the last minute because of a lack of space. However, we address this problem and other LocoSpell snags in the first of a two-part tutorial on pages 24 and 25 of the current issue.

Up and under

I am never sure whether to take the people who complain about sexism seriously. I have a sneaking suspicion that they are having a laugh at us. However, let's take them seriously for the moment because I would like to put straight a comment that you made in June's Postscript, in answer to Philip Taylor, "Pigs and Pins." I am an old instrument maker from long before the term "electronics" was derived. As far back as I can remember, the two parts of a pair that fitted inside one another have always been referred to as male and female parts. With regard to plugs and sockets, some plugs have pins and some have holes. A mains socket on an amplifier has pins, the plug that goes into it has holes so that you can't get a shock from it. So, if you



go to buy a plug and socket you will stipulate male plug, or female plug, according to how you want to use it. In the old days people weren't so sensitive about such inconsequential things.

RS Chamberlin, Leeds

8000 Plus: *Couldn't agree with you more, Mr Chamberlin. But now that we've filled that gap, maybe we can withdraw from this subject for the time being.*

Where there's a will ...

Having one foot in the grave and the other on a banana skin, thoughts turn to writing a will.

Is there any software anywhere for PC or PCW (preferably PCW) which would help me to write a will?

D Barnett, Clwyd

8000 Plus: *Talk about going from the ridiculous to the sublime. As far as the PCW is concerned, Brian Thurston of Thurston Techniques fame (0395 277496) is the man to talk to.*

For the PCW 8256 using LocoScript 1, a will document template can be found on Temp Disc 1 (£17.95). If you're using an 8256 with LocoScript 2, there's one on Temp Disc 2 (also £17.95).

If you're using an 8512, there's one on Temp Disc 8.2 (£19.95). But you will need LocoScript 2 and LocoMail to use it. There's also one on Temp Disc 9 for users of the 9512 (same price).

Moving up ...

Dr James Willis speaks a lot of truth about the excellence of the PCW, its ease of learning and use, and the cheapness of the software. As a basic rule of thumb one could say that the PCW costs one third of a PC to purchase and run for equal output ... For individuals and small businesses the only valid reason to "upgrade" to a PC is compatibility with business machines is absolutely essential.

Amstrad are failing to recognise the gem they have produced and are losing money trying to compete in the cut-throat PC market. What is really needed is an upgrade of the PCW totally compatible with the present machines. The present model is showing its age and may go the way of the Commodore PET unless something is done.

The PCW is 1) short of memory requiring bolt-on packs 2) short of extension ports (5 should be the minimum) requiring either piggy-backing or frequent changing of edge connectors 3) needs a second 3.5 inch drive fitted as standard 4) the complete LocoScript II system with LocoFile supplied with the hardware and 5) a slightly more modern keyboard.

Dr Des Keenan, Middlesex

Thank you for the article by Dr Willis which expresses my sentiments entirely. I bought a PCW 8512 three years ago

and even as a word processor for lecture notes and correspondence, it has paid for itself many times over. Because we had IBM machines at college, I upgraded to the PC 1512, but thank heaven I held on to the PCW. For personal use, it has been very worthwhile. The great thing is that it is relatively simple to use and I can afford to buy the bits and pieces. We can have increased memory - 512K in a Rampac for a hundred quid - just plug it in. No hassle about expanded or extended memory - no blinding with science. Same with the magazines; 8000 Plus I can read and understand - it's all relevant to my system. PC Plus has to deal with so many variations that so much I find irrelevant. Of course, the 1512 is now old hat, we have moved on, but to the home user, where to?

NP Harris, Lincoln

8000 Plus: *Dr Willis's column last month seems to have struck a few chords with readers. Thanks for your comments.*

... and moving out

Your 'Next month' column of a few issues ago indicated that the June issue would contain an article on programs for estate agents. It appears to have gone to cover and is not mentioned anywhere. My question is do you plan, at some stage, to publish such a review?

R Furlonger Christchurch, Dorset

8000 Plus: *Sorry about that, but having planned a comparative review, we were rather let down at the last minute when one of the software houses involved - for reasons still best known to themselves - decided to withdraw their program from the market, apparently for good.*

That notwithstanding, we are planning ahead with the article in two to three months' time.

Pounds, shillings and recompense

I write in reply to Martin Evans' letter about the review of Cashmaster. Although it is true the program will not accept the direct input of non-existent dates, it will do so through the 'repeat postings' routine. Thus, a monthly standing order starting on 31st January will show on 31st February etc... (This did show in the screen dumps as submitted but it was near the bottom and the published dumps were shortened.)

Flippancy may be acceptable in the manual for a game but is out of place in the manual for an accounting package which is aimed at business use. A large proportion of PCW software is bought by mail order and the reviewer is under an obligation to provide an accurate description of the program with its good and bad points so that potential purchasers know what

they are getting.

Programmers also benefit and Cashmaster is the third program to have had changes made as a result of my review comments in 8000 Plus.

DT Frost, High Wycombe, Bucks

8000 Plus: *Thanks for your letter.*

Shrinking violet

In issue 44, George Meredith from Exeter expected no reader knew less about computers than he. Not true! I had hoped to keep my head above mountains of paperwork by getting 'with it' and computerising - until I opened the pages of your magazine to discover, with horror, that it is written in a foreign language.

A 9512, complete with printer and sheet feeder, caught my eyes in the local electrical superstore and the high-foreheaded salesman suggested it could be the answer to my prayers.

Tell me, honestly, without pulling any punches, is there any hope for a 50 plus year old to enter the computer/word processor world to deal with the paperwork involved in running a florist business, or should I stick to my Abacus and steam-driven Remington portable?

Brian Appleton, Slough, Bucks

8000 Plus: *It is a universal truth that standing on the side-lines, watching the action, always gives a worse impression of what's going on than rolling up your sleeves and actually getting stuck in. Reading a computer mag (no matter how rudimentary the subject matter - and 8000 Plus is certainly not shy of stating the obvious from time to time) is bound to give you a headache if you haven't got the equipment switched on and ready to go in front of you.*

It sounds to me as if you're high foreheaded salesman was right. A word processor like LocoScript (it comes with the machine), a simple spreadsheet (Mini Office or SuperCalc) - even a friendly little database - are all that you need to shift the avalanche of paperwork that is clogging up your business. Then there are books to read, magazines to buy, training courses to go on - the list is endless.

So, don't sell yourself short; you can do it - honestly.

Cover your back

Each year I organise a seminar for industrial photographers with all the correspondence, booking details and invoicing being carried out on my Amstrad PCW 8512. A couple of weeks before this year's event, I was wondering how I ever managed before I bought the PCW when I got the dreaded message which indicated disc trouble. Hastily copying the back-up disc, I decided that since the original was about three years old, its useful life was over and it was thrown out. However,

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next day another instance occurred but again it involved a relatively old disc, so I put it down to coincidence; at the third occurrence I started to climb the wall!

'Dirty drive head' was my immediate reaction but I remembered the warning about cleaning heads given in 8000 Plus so I looked through the advertisements for a repair outlet which was fairly near. Now, in the past, I have always been sceptical when reading letters in the magazine praising advertisers but I was delighted to see the letter from F J Pidgeon in the May issue about Suredata.

I rang Mr Serlin on a Monday morning and within 40 minutes I was handing the PCW to him in his workshop at Wembley. At 4pm, I had a 'phone-call to say that a full diagnostic check had not revealed any faults and that I should make sure that bright light could not fall onto the back of the machine. Thanks to 8000 Plus, I knew that this could cause trouble and since our summer had arrived (and departed) early, I now have a screen behind the machine since I work facing a window. Thank you Suredata.

And thank you, 8000 Plus, for your consistently high standards and for your sense of humour which is so refreshing in a journal dealing with a technical subject.

Robert S Williams, Slough, Berks

8000 Plus: Thank you, Mr Williams. Please don't be sceptical, in future, when reading readers' letters praising advertisers' services; they are all genuine testimonials, just like yours.

As for bright light falling onto the back of the machine and causing problems, that's something we haven't heard a lot of. Problems are usually generated by light falling directly onto the drives from the front. Anyway, thanks for the information.

In praise of woman?

No particular reason for writing other than to express my appreciation for what is a thoroughly excellent magazine. I have been buying 8000 Plus since issue 1 and have found it both entertaining and informative.

Your style and general content are superior to the only remaining rival publication which I confess that I do occasionally have to buy because there are some advertisers with no taste, and I like to keep up to date on what's available.

I wonder if your appeal is anything to do with the high female content of your staff?

Roger T Bunting, Sheffield

8000 Plus: Well, it's very nice of you to say so, Mr Bunting, but I'm not too sure how Simon Lankenau, new technical writer Carter Donaghay, not to mention brand new art editor, Harry Athay will feel about your last comment. High female staff content? Don't know what you're talking about.

Mastering the 9512

With all your superior knowledge of computers, could you please tell me if there is any way I can get MasterScan to run on my 9512 and Star printer.

I have managed to mount the scanner onto my printer (no problem) but I cannot copy the original MasterScan disc onto a 720K disc using 8000COPY.

The User Guide says that MasterScan is not copy protected, and advise the user to make a back-up copy, so why can't I copy MasterScan onto a 720K disc. Where am I going wrong?

I wrote to Database Software about my problem, but they were not very helpful, considering that I'd just spent £56.95 on their product, they just told me it was not compatible with the 9512 (sorry to have bothered them really).

There must be hundreds of 9512 owners with dot matrix printers who would like to use such a program as MasterScan.

Hope you can help, and, of course, I do love and buy 8000 Plus every month (crawl, crawl).

D Walker Wallasey, Merseyside

8000 Plus: We've just spoken to someone at Database Software who has informed us that that there is no way MasterScan will ever work with the 9512.

First off, the program's machine code is compatible only with 8000 series machines; secondly, the program won't recognise anything but the machine's native printer. Bad luck, Mr Walker.

Desert drives

I am in Abu Dhabi with my PCW 9512. I have to correspond regularly with an office in the UK equipped with an Amstrad PC 2086 (640K) using Microsoft MSDOS operating system version 3.3 (that bit is totally beyond me. I just copied it!).



"ALL I NEED NOW IS SOMEWHERE TO PLUG IT IN"

Some of the stuff I produce for them and which they produce for me is very long and correspondingly expensive to post by air mail. Were I to install a 3.5 inch disc drive as shown in this month's issue of the magazine, is there any way we could correspond by merely sending the discs through the post?

I should be grateful for your help. Many congratulations on the magazine from which I have learnt a great deal.

**MJ Hall, Abu Dhabi
United Arab Emirates**

8000 Plus: Exactly so. We recommend Compact Micro's 3.5 inch disc, now retailing at £79.95. Their address and phone number are as follows: Compact Micros, 212 Dudley Hill Road, Bradford, West Yorks BD2 3DF (0274 636652).

Interfacing the music

When a dealer tried unsuccessfully to demonstrate a 24-pin printer with my PCW8512 he suspected a fault in the SCA serial/parallel interface.

I telephoned SCA Systems Ltd in the afternoon. They explained how to test the interface and offered to supply another one on loan - no questions about warranty, no written order, no payment. It arrived the next morning.

The printer worked at a second demonstration. There had been nothing wrong with my original interface; I feel the prompt and trusting service from SCA Systems should be widely known. Be kind to your advertisers and publish this.

**Gunter Wittenberg, Pinner,
Middlesex**

8000 Plus: Thanks for your letter, Gunter.

Spare us!

Can you explain why PCW spares prices are so high - when they are available, that is?

A replacement keyboard for the PCW 9512 is £135 (plus VAT). The PCW keyboard has 82 keys. In the ad, I am looking at a 102 keyboard for a PC which is £55!

The only good news in this unequal relationship is that 8000 Plus is £1.75 compared with the PC mag I read at £2.30. Could you take over Amstrad please?

Mike Maber, Weymouth

8000 Plus: If one of your PCW peripherals develops a fault which looks like it might be fairly terminal, it is possible, instead of buying the whole peripheral, to just buy the bit, or bits and pieces, which you suspect of being faulty. You can do a re-assembly job yourself. One of the best dealers in spare parts for out of warranty machines is CPC in Preston, Lancashire. Phone them on 0772 555034 for further information. It's worth remembering that they also stock PCW manuals for a modest fee.

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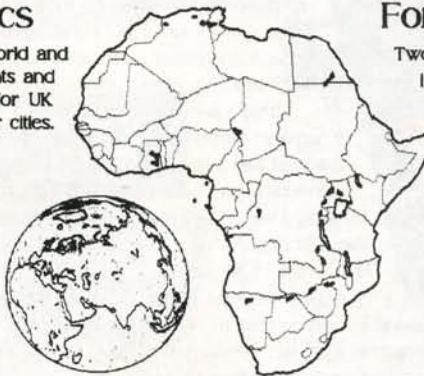


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COMPETITION

Answer correctly the five simple questions below to win £20-worth of CDS's new five games in one package for you and your PCW



you don't have to drag any unwilling adversaries to your PCW to play with you; you can play and enjoy all the games on your own if you prefer. And, bar the usual excess, you're not likely to get bored quickly either; the games are pretty challenging, especially the word search. The rather indiscriminate directions of the word placings will have you squinting and generally performing all sorts of grotesque facial contortions for hours.

So if you're interested in winning twenty quids' worth of game compilation that will provide you and your family with hours of amusement, send in your answers to the following questions (on the back of a postcard) to: Games Competition, 8000 Plus, 30 Monmouth Street, Bath BA1 2AP. Hurry though, there are only three Entertainment Centres to be won. Closing date for entries is the 29th August.

- 1) In which country did backgammon originate?**
a) Japan b) Persia c) Greece
- 2) What is the name of the line behind which the players must stand during a game of darts?**
a) the "hockey" b) the "beehive" c) the "stock"
- 3) Sebastopol is the name of a game played with**
a) cards b) dominoes
- 4) The term "trumps" comes from the French "triomphe"**
TRUE or FALSE
- 5) How many indentations are there on a solitaire board?**
a) 33 b) 45 c) 59

June winners

Well, it's the moment you've all been waiting for: time to announce the three lucky winners of June's AgendA competition. Our congratulations – not to mention MicroWriter's electronic organisers – go to **Mr Brian Timson from Cardiff**, **Mrs R Smith from Canterbury** and **HL Gjorup from Denmark**. They correctly spotted the words AGENDA, (LCD) SCREEN, CABLE(S), MICROWRITE, ORGANISER and POCKET in the word square.

Disappointed contenders shouldn't forget that this month sees the close of our AgendA special offer. Turn to page 81 for further details.

Next month

Index we trust

Next month sees the fourth birthday of 8000 Plus. Of course, the more issues there are, the harder it is to find that one crucial review of which you suddenly have dire need. Consequently, we will be taking upon ourselves the mammoth task of cataloguing all the subjects we've covered in the past twelve months – in alphabetical order – along with issue and page numbers. So tear it out and keep it safe!

Get the picture

In this month's first Cracker II tutorial, we showed you how to create a simple, workable spreadsheet that will revolutionise your home accounts. Next month, we will be showing you how to present that same information in the form of graphs – whether bar, pie or line charts. Don't miss next month's instalment.

Refresher course

It's one of the most important parts of your printer; without it, you won't get anywhere. What are we talking about? Ribbons, of course. Just because your ribbon has turned grey, is it really necessary for you to sling your ribbon cassette and buy a new one? The solution may lie in re-inking; after all, it's not only cheaper, it's greener, too. To discover all the facts and figures behind successful ribbon maintenance – what they're made of, how long they are, what colours they come in, and how much they cost – don't miss next month's issue.

Do the Locomotion

Next month sees the beginning of a regular LocoScript spot in the magazine. We'll be addressing common problems, mistakes and misunderstandings – especially the kind to which newcomers to word processing so often fall prey. There will also be plenty of hints, tips and advice from professionals in the know. If you would like to contribute to the success of our new LocoScript forum, please continue to air your queries and snags at the usual address: LocoScript Forum, 8000 Plus, 30 Monmouth St, Bath.

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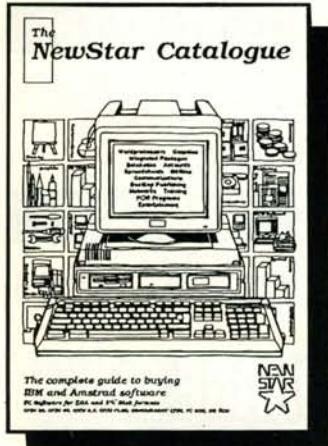
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News From The Software Specialist

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NewStar Software Catalogue



By popular demand the PCW section has been expanded, and includes the complete Loco selection from *File to Font*.

Displaying its usual commitment to be much more than just another software vendor's flog sheet, the *NewStar Software Buyers' Guide and Catalogue* is available free of charge - just call or write for your copy.

There are 64 pages describing

More for the PCW owner than ever

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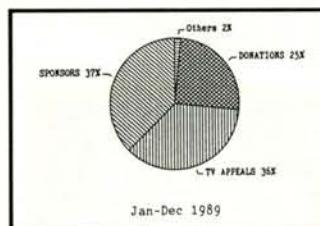
We were there from the launch of the PCW with any CPM software transferred to 3" disk on request; and

our classic CPM applications *Touch'n'Go*, *NewWord* and *Cracker* are still the best in their respective fields.

Several feature data and skill portability to MSDOS (IBM PC) systems, so skills learned on the PCW can be carried forward with no wasted effort.

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Still the only high res graphic spreadsheet for PCW users



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